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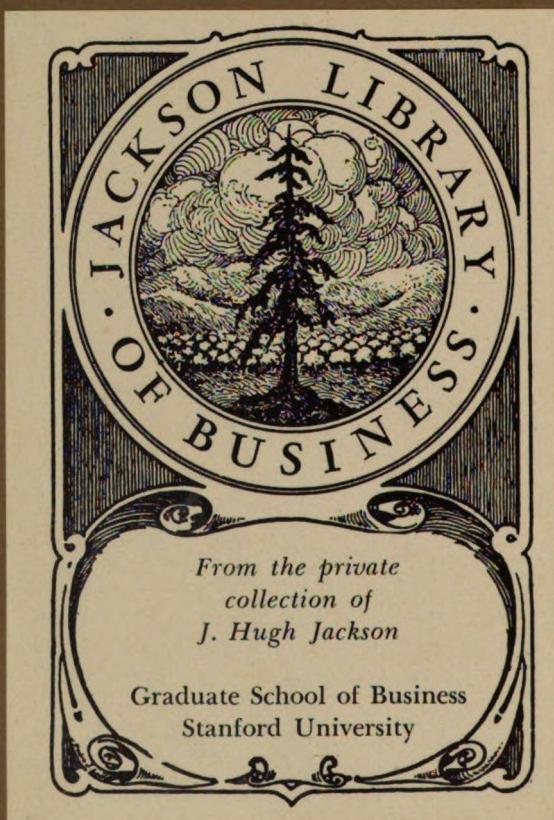
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## Federal Relations

Advancement and Regulations of the Profession

By JOHN ALEX. COOPER, C.P.A.

### *Review of State C. P. A. Laws*

The first nine years of the American Association of Public Accountants were those of growth and gradual development, largely local to the city of New York, as the financial metropolis of the country. Our lasting obligations are due to our brethren of the New York State Society for their zeal and tenacity while seeking statutorial recognition from their legislature, which happily culminated in their chapter 312 of the acts of 1896, the C. P. A. law.

While this law guided and inspired the practitioners of other states as an example whereby to obtain similar recognition, subsequent conditions have shown that in this, the first statute of the kind, no provision was made for reciprocal recognition of those who were certified by other states, with the result that those who have attained prominence in practice and are commissioned by their own state, and who subsequently find it necessary to establish themselves in New York City have no opening by which they may enter into full fellowship with the New York members; while on the other hand the New York State Society is thereby restricted from adding to its roster a most desirable and constantly increasing class of practitioners whose affiliation with the New York Society would be a most beneficial accretion to the register. Upon the surface it may seem that this is more a state society matter than one for the American Association, but the

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fact is that New York City, as the financial centre of the country's activities, draws upon the accounting talent beyond the borders of the state to a degree that other states do not, so that it makes this situation of vital concern to every constituent society, and therefore to the association as a whole.

It is hoped that our colleagues will continue their efforts to have this restriction removed by the New York legislature, with the same tenacity they displayed in 1896 when they secured the passage of the bill.

### *Chronology*

In 1899 the state of Pennsylvania passed a law by which the Governor issues the certificates upon the recommendation of a board of examiners, three of whom are C. P. A. and two are practising attorneys.

In 1900 Maryland followed with a board of four, two of them accountants and two practising attorneys, and so on down the list of states as follows:

California .....	1901	Georgia .....	
Illinois .....	1903	Louisiana .....	1908
Washington .....	1903	Ohio .....	
New Jersey .....	1904	Massachusetts .....	
Florida .....	1905	Minnesota .....	
Michigan .....	1905	Missouri .....	1909
Rhode Island .....	1906	Montana .....	
Utah .....	1906	Nebraska .....	
Colorado .....	1907	Virginia .....	1910
Connecticut .....	1907	W. Virginia .....	1911
		Wyoming .....	

### *Varying State Standards*

There are twenty-four states with C. P. A. legislation of diverse forms and degrees of merit, not only as to their elements and procedure, but, most important, as to the quality of examinations and effectiveness in results. It could not well be otherwise.

Three states issue certificates through their respective state universities to those students who pass the examinations.

In eight of them the governor issues the certificates upon the recommendation of the examiners.

### *Federal Relations*

In one the state banking commissioner is the authority; in one the secretary of state; and in eleven the state board of examiners is the grantor. In the latter case three states require annual renewal of certificates.

I do not look for any dissent from the claim that progress has been made during these sixteen years along correct lines towards establishing in the minds of business men that professional accounting is an essential feature of commerce; and furthermore that to the extent that we both individually and as a representative national body adhere to the generally accepted principles implied by the confidential relations of this service to clients, we shall continue to deserve the appreciation not only of the business community but of the bar, the state authorities, and the federal government as well.

There are two leading suggestions to be drawn from these related facts:

#### *This Association's Duty*

FIRST: That this association through its committee on education maintain a register in which a system of grading the examination papers of the several states should be kept as a stimulating basis for maintaining fair average standards by which students are commissioned as practitioners under the diverse methods in vogue in the several states. There is abundant scope for the development of this thought, and not the least useful feature is that it would aid in course of time in revealing the vulnerable points in our state systems of education, whether in the grammar or common grades, the high schools, the collegiate branches, or in the schools of commerce and accounting that have grown up in recent years. Certain it is that without departing from the practical or verging on the altruistic we owe it to ourselves as well as to the country to be able as a professional organization to respond to such questions as may come within the range of our duty; and, what is more to the point of our common interest, our average standard of qualifications should be such as to encourage deserving students to take the examinations and thence by entering into active practice circumscribe the field of those who are manifestly unqualified to pursue a calling requiring not only a certain scholarly and technical ability, but which demands in its service a high sense of honor, strict

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regard for the golden rule and a full realization that the faith of the commercial public in an accountant's certificate attached to a financial statement is not alone the concern of the individual or firm but also that of his colleagues in this association.

It has been pointed out by one of our wellwishes among the bankers at one of our gatherings that our development and growth as a professional body of men was not commensurate with the public demand, and statistics were produced to support the charge. Most of the state laws condition the effectiveness of reciprocity clauses upon maintenance of equivalent standards of examinations. We have also before us the standards established in the several provinces of Canada and in Great Britain, while in the latter country the "professional accountants' registration bill" now under consideration by the authorities there contains a specific clause by which, should they wish to practise in the United Kingdom, certified public accountants of the United States may secure registration under qualifications to be approved by the register committee.

Hence from every standpoint we should maintain a standard of examinations that will meet with approval from our colleagues throughout the business world.

So much in justification of our attitude as to the grade of our examination papers and other fundamental and educational requirements from the student.

*State Control Inadequate*

SECOND: While the number of states having C. P. A. laws is twenty-four—exactly one-half—measured by population they represent sixty-five per cent, principally in the industrial and commercial centres of the country. It is at these commercial centres, regardless of either state or national boundaries, that professional accountancy is most in demand and where the practitioner in the full sense of the term is found; that is, one who makes the service to the business community his life work. It is also apparent that these central or focal markets are where capital for investment seeks outlet, and as an essential preliminary the accountant is required to establish the logical facts as to property and performance. This service as before intimated cannot be circumscribed by local conditions or geographical limits, but it is intimately related to the investing power of the community

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in which the accountant lives and practises. Where the accountant's services are most in demand there you will find the widest and safest field for the use of investing capital. New York accountants are to be found in the financial centres of South and Central America, France and England; Illinois accountants have been commissioned to China, Alaska, Canada and Mexico, and so it is doubtless with those of other financial centres. Furthermore the respective states have no effective control over a certificate-holder should he establish himself in another state where there is no similar statute in force.

Thirty per cent of the certificates issued by the state of Illinois are held by accountants residing beyond its borders.

The broad lines upon which traffic is now carried on cannot be regulated and controlled by state enactments which, while having the same general purpose, differ in varying degrees from causes which are constitutionally beyond control. Many legislatures—many minds! And if industries of national compass and those that have built up an exporting business were to be subject to the periodical scrutiny and control of each state where a branch office may be established, it would only result as in the case of the man in Æsop's fable who tried to please every passer-by in the treatment of his beast of burden, and ended by losing the animal.

### *Scope of the Service*

Accounting, like other exact sciences, astronomy, chemistry, and the physical sciences generally, is founded upon mathematics, which through the proper application of its laws is logical perfection. Its application to the needs of modern business is not simply recording the results of past acts, as a general indicator of the effect of management at seasonable periods. Tabulating details of last year's results will not increase dividends next year, if it is only a record. Close and timely analysis in industrial accounting has been quite as economically effective in the past ten years as the mechanical inventions during the same period; and in financial accounting elaborate tabulation and classification are of but passing interest unless they portray the results of activities so that the management can lay out a future course as clearly as the mariner does by the aid of chart and compass.

It is an anomaly that managers are so tenacious of the balanc-

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ing of their cash accounts, while they consign valuable merchandise bought with cash to the crucible of the factory without accountability beyond the periodical returns of manufactured product. There are ten times more leaks in the latter than in the treasury, and where decimals often determine the question of success or failure, dividends or disappointment, it is obvious that indifference to exact and continuous close industrial accounting is under present competitive conditions foolhardy.

*A High Standard Demanded*

In our economic relations the final effect of all our conduct upon those with whom we deal is to replenish or diminish their life. Professional service is good in proportion as it enlarges the life and range of the industrial community.

JOHN RUSKIN expressed it thus: "That country is the richest which nourishes the greatest number of happy human beings; that man is richest who having perfected the functions of his own life, has the widest helpful influence, both personal and by means of his possessions, over the lives of others."

We all have a general idea of what is meant by ethics—moral principles, custom, duty, philosophy, or precepts—but when we try to apply the term specifically to our own calling we are too prone to dismiss the problem under the influence of the commercial atmosphere that surrounds us, and regard it abstractly. It is not philanthropy and only in the degree that it is opposed to egoism or self is it altruism.

Herein are the fundamental distinctions between a trade and a profession. A merchant need have no scruples about seeking a rival's customer; success in that direction is considered rather to his credit. A buyer and seller are obviously at opposite poles as to their attitude, and, as the law assumes in its maxim *caveat emptor*, must take care of themselves. There is no delicacy in such relations, and no confidence established; the personal equation is not raised.

The relations of accountant and client are very different. The latter is not a customer buying merchandise, nor does he if he is wise seek professional help in the cheapest market. There is no counter between them upon which goods are displayed. The interests of the client need professional help exactly in the

### *Federal Relations*

same sense in which one goes to his lawyer for advice, his physician for relief, or his architect or engineer for plans.

The relation implies, in fact demands, the utmost confidence on matters pertinent to the service sought; the affairs of a client must be regarded as sacred and inviolable and unless they are frankly and fully exposed to the practitioner the client only injures his own cause.

Such close relations should not be changed abruptly as the result of rivalry or unprofessional competition.

The accountant's value in his community is in exact proportion to his integrity and ability as a man and the estimation of his professional service cumulatively impressed upon the industrial and financial interests that he serves.

This profession, like that of the law, is not free from the barnacles that fasten themselves on the body politic; they have their shysters, politicasters, ambulance chasers and other mercenaries, while the accountants are besmirched and blamed as a whole for the deeds of irresponsible men who are not accountants but are mere formalists, mechanizers and empirical practitioners, totally wanting in the professional instinct or regard for its inherent principles.

### *Federal Registration*

Taking into consideration first the preliminary requirement that a thorough fundamental education is necessary in order to qualify as a student, that from three to four years' technical study must follow, and this in turn be rounded off by three or four years' service in an accountant's office in order to acquire the practical training, before one can hope to pass successfully through a state board examination, it follows that not only is this association bound by every consideration of protection to the public, enlightened self-interest, and due regard for a reasonable moral or ethical code to endeavor to co-ordinate the entrance requirements and examination standards of the various state examining boards, but that we should take into consideration the feasibility and practicability of federal registration incident upon a supplementary examination after a period of years in active practice, to be held by a board appointed by the secretary of the treasury, or other high official, from among the professional accountants of the various states—this examination for a time to be

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more practical than technical—and the examining board to maintain identical books of registry at the treasury, commerce and law departments, and with the clerk of each federal circuit court.

The suggestion is thrown out now for consideration and elaboration as to internal discipline and adequate safeguards in the public interest generally; and, specifically, the widespread demand for such technical service certainly should be supplemented by some wholesome channel of redress to which appeal could be had in cases of abuse of confidence and breach of trust. The courts of law are not available nor effective in such matters and it is important that the public should have redress for wrongdoing without unnecessary delay and expense.

There is wholesome restraint in the knowledge that unprofessional conduct jeopardizes the certificate; and that a board with disciplinary power will deal justly with complaints.

The question will arise as to why it should be necessary for this profession to seek such regulation for federal or interstate purposes when it has not been found necessary for lawyers. The answer is that there does not exist any forum to which to appeal in matters germane to the work and the patron's protection, whereas lawyers are sworn officers and assistants of the court and subject to its orders in every way that will advance the cause of justice and equity; the sovereignty of the state is represented by the bench and the majesty of the office commands the respect and obedience of its officers, even to the point of serving the indigent without hope of reward.

*Certified Returns for Taxing Purposes*

Another fundamental question that comes up is in the relations of the skilled accountant to the government in matters appertaining to taxation or excise duty, but which, by the way, is nothing more than an income tax. The duties of our legislative bodies (and this means state as well as federal) are not performed in passing enactments for the raising of revenue and therein directing that a departmental chief shall establish rules and processes for its enforcement.

Therein is the keystone of bureaucratic government in its most insidious and obnoxious form; every revision or addition to our revenue laws involves the opening of a separate bureau,

### *Federal Relations*

and in the event of a general income tax as now contemplated there would be a multiplication of bureaux that in magnitude can hardly be realized.

#### *Ultimate Effect*

Accountants would not, in fact cannot, be alarmists, but with their aptitude and logical faculties on edge at all times they cannot shut their eyes to the natural sequel to this tendency in government. It is but a step from bureaucratic conduct of affairs to sumptuary laws, universal commercial regulation, and lastly and inevitably secular socialism.

Government interference or regulation of commercial affairs, where they are not monopolies, is repugnant to our race, and the proposition now offered meets this condition in a degree and finds an available agency for certified governmental returns while the accountant acts in a fiduciary relation to clients.

This latter phase is already established to the satisfaction of merchants, bankers and investors and it only remains for our authorities at Washington to see their opportunity and avail themselves of it, wherever taxation or regulation involves commerce.

The general income tax question upon which only two more states have yet to vote affirmatively is also impending, so that whatever can be done should be arranged for within the next few months.

# The Nature of By-Laws\*

BY THOMAS CONYNGTON

*Member of the New York Bar*

## BY-LAWS AND THEIR FUNCTIONS

By-laws are those quasi-permanent regulations of corporate affairs, distinguished on the one hand from the formal provisions of the charter, which can only be changed by the statutory procedure for charter amendment, and, on the other hand, from the less permanent provisions of motions and regulations which generally refer to transient matters or those pertaining more directly to the business operations of the corporation.

The charter, together with the laws of the state of incorporation, may be said to comprise the fundamental or constitutional law of corporations, while the by-laws are analogous to legislative enactments. In one of the earlier discussions they are referred to as "by-laws, or private statutes for the better government of the corporation," and, in an early case it was said of the adoption of a by-law: "It is an act of legislation, and the solemnities and sanction required by the charter for its passage must be observed."

As defined generally, "a by-law is a rule or law of a corporation for its government"; "a permanent rule of action, in accordance with which the corporate affairs are to be conducted"; "a rule or law adopted by it for its internal government, and to regulate the conduct and prescribe the rights and duties of its members towards itself and among themselves in reference to the management of its affairs"; "rules to regulate the management of the affairs of the corporation that it may more readily and conveniently fulfill the purposes for which it was created." Or as stated in a comparatively recent case, "by-laws are simply the rules of corporate government. While they aid in the orderly transaction of the corporate business, they also serve sometimes as a protection of the corporation itself or of minority members against ill-advised or illegal acts of the majority."

By-laws are usually intended to regulate only the internal

\* Sustaining citations have been omitted.

### *The Nature of By-Laws*

affairs of the corporation. The "term has a peculiar and limited signification; being used to designate the orders and regulations which a corporation, as one of its legal incidents, has power to make, and which is usually exercised to regulate its own actions and concerns, and the rights and duties of its members amongst themselves." They "are not in the nature of legislative enactments as far as third persons are concerned. They are mere regulations of the corporation for the control and management of its own affairs."

The by-laws also constitute a contract between the corporation and its stockholders. "They are self-imposed rules, resulting from an agreement or contract between the corporation and its members to conduct the corporate business in a particular way." "So far as its provisions are in the nature of a contract, the parties thereto are the members of the association or corporation as between themselves, or the corporation on one side and its individual members upon the other."

The power to make by-laws is a common law right, "necessarily and inseparably incident to every corporation."

By-laws must be reasonable, equal in operation, and in furtherance of the purposes of the corporation. "All by-laws to be valid, must be reasonable, must be consistent with the laws of the estate, and promotive of the interest of the corporation; they must not be unequal, oppressive, or vexatious. \* \* \* A by-law to be entitled to the name, must be some regulation which operates upon all alike."

By-laws when properly adopted are binding upon all the members. Thus we have the extreme statement in a comparatively early case. "So here the by-laws of the company, made in pursuance of the charter, are equally as binding on all their members and others acquainted with their method of business as any public law of the state." In another case it is more moderately stated of by-laws that "those duly made are obligatory upon all the members and each one is bound to take notice of them," and "when duly enacted by the body to whom the corporate legislative power is delegated, by-laws are binding upon all the members of the corporation who are presumed to know them and to contract in reference to them." Or again, as to the effect of a by-law, "when that by-law was adopted, it was as much the

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law of the corporation as if its provisions had been a part of the charter."

BY-LAWS SUBORDINATE TO LAW AND TO THE CORPORATE CHARTER

As the corporation itself is a creature of the law, it is obvious that the provisions of its by-laws must not violate nor be in opposition to the provisions of this law. This is an elementary proposition, recognized broadly. Neither can by-laws contrary to the principles of the common law be enforced. Thus by-laws in restraint of trade, against public policy, subversive of justice, or impairing vested rights, have been held to be illegal. The proper office of by-laws is to regulate the incidental business of a corporation. They should not affect rights of property nor create obligations unknown to law.

Where the statutes of a state expressly authorize corporations to pass by-laws regulating specific matters, it was formerly held that such authorization acted, as to the corporations of that state, to restrict their power to pass by-laws to the matters so specified. The present weight of authority holds that the specification of certain subjects for by-law regulation does not exclude by-laws on other subjects which are within the general power of a corporation.

In many states matters formerly left to by-law regulation, such as the annual meeting, voting powers, proxies, quorum, transfer of stock, and the like, are now regulated more or less fully by the statutory law. In these states the by-laws may make such additional requirements, in harmony with the statutes as the stockholders see fit, but cannot vary the provisions of the statutes.

By-laws must also be subordinate to and in harmony with the provisions of the corporate charter. "The right of a private corporation to enact such by-laws is inherent and incident to its existence. This power is subject to the condition that the by-laws must be reasonable and not contravene or be inconsistent with the charter or any existing law of the state."

"But by-laws must be reasonable, and for a corporate purpose and always within charter limits. They must always be strictly subordinate to the constitution and the general law of the land.

### *The Nature of By-Laws*

They must not infringe the policy of the state or be hostile to public welfare."

As stated, by-laws contrary to the provisions of the statutory law or charter are void. Beyond this, if they attempt to exceed the powers limited to the corporation by its charter, they are *ultra vires*.

Some membership corporations have by-laws and in addition to these have what is termed a constitution. Such constitutions have been held to be of no greater dignity or force than by-laws and as being merely by-laws under an inappropriate name. This is not, however, a complete statement of the whole law, for a great number of churches, secret societies and other voluntary associations are governed by constitutions, articles or some equivalent, which differ from by-laws in requiring greater formality and usually a greater majority for their repeal or amendment. Technically, such constitutions are not charters and are not regarded by the law as of the same force as the charters of incorporated bodies. As a valid contract between the membership, however, they have for most practical purposes the same function in voluntary associations that charters have to corporations, and the by-laws of such associations are subordinate to their constitutions just as the by-laws of an incorporated body are subordinate to its charter.

### BY-LAWS SUPERIOR TO RESOLUTIONS AND MOTIONS

By-laws, while subordinate to the law of the land and to the charter of the corporation, are superior in authority to resolutions and motions. Hence, if a motion or resolution conflicts with a by-law, the by-law will prevail and the motion or resolution so far as it conflicts is void.

The distinction between a by-law and a motion or resolution is not, however, always clear. The difference is said to lie "in that a resolution applies to a single act of the corporation, while a by-law is a permanent and continuing, rule, which is to be applied on all future occasions." This statement is, however, too broad. If a by-law applies to but a single act of the corporation, as for instance, to the election of the first board of directors, it is still a by-law. Also if a resolution applies to more than

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one act of the corporation, as for instance, a resolution calling for a monthly report from the treasurer as to the financial condition of the company during the current corporate year, it is still a resolution; or if a resolution be of continuing effect, as a resolution of the board authorizing the treasurer to sign cheques on behalf of the corporation, it is not necessarily a by-law. Beyond this, it has been held that if a motion or resolution of suitable subject-matter were adopted with the formality incident to the adoption of a by-law, it would be equal to a by-law in dignity and in effect and would in fact be a by-law. "The mere fact that a by-law is in the form of a resolution does not render it any the less a by-law."

To sum up it may be said that where the subject-matter of a motion or resolution is the same as that which might properly form the subject-matter of a by-law, it seems doubtful whether any distinction as to legal or practical effect can be made, when properly adopted by a body competent to deal with the subject-matter, between the by-law on the one hand and the motion or resolution on the other.

Where the stockholders alone have power to adopt by-laws, it is obvious that any action of the directors must be confined to resolutions and motions and it would seem that these could not have the force or dignity of by-laws. It has, however, been held in such cases that when directed to something that is proper subject for by-law regulation, not already provided for by existing by-laws the directors' action has all the effect of a by-law. This is probably not true to the extent that stockholders would be held chargeable with notice of resolutions found only in the directors' minutes, to which the stockholders have ordinarily no access.

Where directors alone are empowered to make by-laws, the converse of this ruling does not hold, since it is well established that under such conditions resolutions of the stockholders embodying subject-matter for a by-law provision are void.

Where by charter or other sufficient authority, a vote greater than a majority is required to adopt, amend or repeal by-laws, this effectively marks one difference between by-laws and resolutions. In such case a resolution is legally and practically effective as to its subject-matter—even though this were properly a subject for by-law regulation—but could be repealed or

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amended by a bare majority of a quorum unless it had been adopted by the majority required for the adoption of a by-law and had thereby been raised to the technical status of a by-law.

### BY-LAWS DISTINGUISHED FROM RULES AND REGULATIONS

By-laws are intended to regulate the action of the corporation and the rights and duties of its members amongst themselves. "They are self-imposed rules, resulting from an agreement or contract between the corporation and its members to conduct the corporate business in a particular way. They are not intended to interfere in the least with the rights and privileges of others who do not subject themselves to their influences." In this they differ from the rules and regulations frequently adopted by corporations which are designed to regulate their stockholders as outsiders.

The term "regulations" is sometimes used loosely as a synonym for by-laws; but the courts distinguish between by-laws and the usual rules and regulations for the direct conduct of a corporation's ordinary business transactions. "But the *by-laws* of a private corporation bind the *members only* by virtue of their assent, and do not affect third persons. All regulations of a company affecting its business, which do not operate upon third persons, nor in any way affect their rights, are properly denominated by-laws of the company \* \* \*."

"But there is another class of regulations, made by corporations, as well as by individuals, who are common carriers of passengers, which operate upon and affect the rights of others, which are not, properly speaking, by-laws of the corporation, \* \* \* of this character are all regulations touching the comfort and convenience of travelers, or prescribing rules for their conduct to secure the just rights of the company."

Thus a railroad company will prohibit smoking in its general passenger cars or will require passengers to exhibit tickets when reasonably requested. Other public service corporations likewise establish various rules and regulations for the guidance of those who use their public facilities and for the government of their employees. Business corporations have their

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own regulations. All these are sustained when reasonable. A stockholder in any such corporation, however, while held to have notice of the provisions of its by-laws, is not, in the absence of proof to the contrary, held to have notice of its rules and regulations.

The rules and regulations of a corporation are usually prescribed by the board of directors under their general power to manage the business of the corporation. Sometimes, however, with the express and implied authority of the board, or by authority given by the by-laws, such rules are prepared by the officials of the corporation. This marks a clear distinction between rules and regulations and the by-laws of a corporation, for directors have power to enact proper rules and regulations without any specific authorization, whereas they have no right to adopt by-laws, unless expressly empowered thereto by some competent authority. In a frequently cited Indiana case, turning on the wording of a statute, this distinction seems to have been lost sight of, regulations to govern the traffic over the road controlled by the corporation being confused with by-laws.

The more important rules and regulations controlling the business operations of a company are sometimes incorporated in the by-laws, but while this is legally permissible, it is of doubtful propriety, as the function of a rule or regulation is, as stated, different from that of a by-law and the two should not be confused.

Thus the familiar rules of a transportation company that fares must be paid on entering the cars, that transfers must be asked for when fares are paid, that passengers must not leave cars while in motion, that they must enter by one door and leave by another, are obviously unfit matters to appear in the by-laws, and the same may be said of rules and regulations affecting very much more important matters.

On the other hand, certain matters might properly be regulated either by by-law provision or by rule or regulation. Thus the signature to cheques, drafts and other corporate instruments is usually prescribed by the by-laws. If not so prescribed, the directors have full power in the matter and their provision as to signatures would control unless and until overridden by an authoritative by-law.

An examination of the by-laws of the representative cor-

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porations of the country will show a divergence of practice as to what should be included in the by-laws and what is properly left to be controlled by rules and regulations. It may, however, be stated generally that continuing matters which, though relating to business, are of general application or great importance, should be regulated by the by-laws. All other matters relating to the business operations of the company should be left for its rules and regulations.

### SCOPE OF BY-LAWS

The scope of by-laws is limited broadly by the terms of the corporate charter and by the law of the land. As already stated, any by-law provision in conflict with either of these higher authorities is void. Also the legislature or the charter may prescribe the scope and purposes for which by-laws may be enacted and the method of their enactment, and these provisions will control; "but in the absence of any restriction by the legislature, the propriety or character of the by-laws is to be determined by the corporation itself, subject, however, to the condition that they must be reasonable and not contravene or be inconsistent with its charter or any existing law of the state." "So far as members are concerned, it is competent for them to make such contracts or by-laws as they desire, provided they are not repugnant to some positive rule or law or against public policy." "They should not affect rights of property or create obligations unknown to law."

Within the limits specified, by-laws vary with the character and purposes of the corporation. When enacted by the stockholders they embody the wishes of the principal body of the corporation for its management. When the stockholders have full power to make by-laws, their wishes so expressed control and the by-laws then afford a means—and the only means short of a charter amendment—by which the stockholders can impose their will upon the directors and officers.

The proper office of by-laws is to regulate the procedure and general business of the corporation in all those particulars which should be conducted consistently in the same manner which are not prescribed by the law of the land or the charter. The regulation of matters wherein the procedure varies and where ac-

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tion requires the exercise of discretion, should be determined by the directors as may from time to time be necessary.

Speaking generally, the by-laws regulate the meetings of stockholders and directors and the procedure thereat, define the duties and powers of directors and officers, prescribe the method of issuing and transferring stock, and provide such other details of corporate procedure and management as should be permanent and continuing.

BY-LAWS AS CONTRACTS

In a limited sense, all by-laws are contracts. "The by-laws constitute a part of the contract between the stockholder and the corporation and are binding upon both." "So far as its provisions are in the nature of contract, the parties thereto are the members of the association, as between themselves; or the corporation upon the one side, and its individual members upon the other."

While this is true, most by-laws are merely rules of action for the internal government of the corporation and have none of the essential legal characteristics of a contract. In some circumstances, however, a particular by-law or set of by-laws may become in effect a contract, the provisions of which can be legally enforced against the corporation.

When this is so, the ordinary corporate power of repeal or amendment does not prevail as to these by-laws. In some cases it is completely abrogated, while in other cases the particular by-law or by-laws may be amended or repealed, and such amendment or repeal will be effective as to the future but will not change the status of contracts already made in reliance on these by-laws.

Thus, unusual voting rights may have been given stock or certain stock by the by-laws as an inducement to secure subscriptions to the stock. If, then, subscribers invest in the stock in reliance on such by-law provisions, the by-laws cannot thereafter be altered so as to divest their stock of its unusual rights.

Or again, a mutual insurance company by direct reference thereto or by printing them on its certificate or policy, usually makes its by-laws part of its policy of insurance. When this is the case and rights have vested thereunder, it is generally held

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that the by-laws cannot be changed so as to affect the substance of these rights.

### CONSTRUCTION OF BY-LAWS

By-laws are to be construed in the same manner as statutes, contracts and legal instruments generally. Thus it is said "no reason appears why this by-law, which declares what shall be the law as between these parties, shall not be subject to the rule of interpretation which pertains to the construction of statutes"; also, "if such a provision in the statutes of the corporation in relation to the annual meeting had been found in express terms, it should still receive the same construction which similar provisions do in legislative statutes."

The recognized rules for the construction of statutes, contracts and legal instruments generally are as follows:

(1) Words are to be taken in their usual and best known signification, *i. e.*, their plain and literal meaning.

(2) If the meaning of words or expressions is dubious, it may be established from the context.

(3) Words are always to be interpreted in connection with their subject-matter and with reference to the reason and spirit of the instrument; *i. e.*, if two meanings may be given, that meanings should be adopted which is in harmony with or in pursuance of the intent of the instrument.

(4) Literal construction is to be avoided if it leads to absurd or unreasonable interpretations.

(5) The intent of the instrument should always be considered and that construction adopted which will carry out its intent rather than another that would make it void. Of two meanings reasonably deduced from its language, that will be preferred which will make the instrument legal, valid and reasonable. By-laws should not have retrospective action—unless no other meaning can be annexed.

It may also be said that as the corporation itself prescribes its by-laws and adopts their phraseology, by-laws should be construed in favor of the individual and against the corporation.

When a by-law must be taken in its entirety, and part is void, the whole is void. If, however, it is separable, the fact that part is void will not affect the validity of the part that is not void.

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Some variation of the general rule of construction controlling in the case of legislative acts obtains in regard to by-laws, due to the fact that the societies or corporations may by their own acts give a practical construction to their by-laws and this construction should prevail. "The form of government of the corporation or society is such that, so far as it is self-controlling or capable of making and enforcing its own laws, the same power or body which enacts, likewise interprets, and then executes those laws."

When the intent of by-laws is a matter of adjudication it has been said by the supreme court of Wisconsin, "our view respecting the function and office of the court in cases like this, no question being made that the by-law is unreasonable, against law, or contrary to public policy, is that the court must construe and give effect to the by-law in the same manner and upon the same principles that it would construe and give effect on an agreement in writing made and entered into between private individuals. The rules respecting the construction of contracts and agreements in writing are well understood. If the contract is plain and unambiguous, it is a question of law for the court to determine the intention of the parties from the words used. If, on the other hand, the language used is doubtful, or the intention not clearly expressed, and the ambiguity is such that it may be explained by other evidence, or if the meaning of the terms used is to be ascertained and determined by extrinsic proof, then the construction is usually a question of fact for the jury."

Finally the rules of common sense must apply and it may be said, "there being nothing in the by-law or construction given, either unreasonable, against the principles of justice or morality, or contravening the rules of law or sound policy, that the practical construction should govern and be absolutely authoritative whenever the question is judicially presented."

Generally it would be the province of the court to construe by-laws rather than the jury, as the construction of written instruments is the function of the court.

## Goodwill, Patents, Trade-Marks, Copyrights and Franchises

BY PAUL-JOSEPH ESQUERRÉ, C. P. A.

### GOODWILL

One of the most commonly quoted definitions of goodwill, so far at least as accounts are concerned, is the one given by LISLE in his book on *Accountancy in Theory and Practice*: "Goodwill is the monetary value placed upon the connection and reputation of a mercantile or manufacturing concern, and discounts the value of the turnover of the business in consequence of the probabilities of the customers continuing."

Another definition, is the one appearing in the opinion of LORD ELTON in the English case of *Crutwell v. Lye*, which is about one hundred years old: "The goodwill which has been the subject of a sale is nothing more than the probability that the customers will resort to the old place."

LORD ELTON's definition gives the impression that goodwill is a purely local matter, and that if a concern having acquired the business of another, subsequently transfers it to a different locality, it loses the right to expect that the old customers will continue. This is indeed the stand taken by a Pennsylvania court in the case of Elliott's appeal,\* in which it was held that the goodwill of an inn or tavern did not exist outside of the premises where the business was conducted at the time of the sale.

Still, LORD ELTON's definition has been the subject of much criticism in and out of American courts, owing to its narrow conception of the valuable asset goodwill. Nor does it seem that English courts have shared his views. Vice Chancellor SIR W. PAGE WOOD, says: "Goodwill, I apprehend, must mean every advantage \* \* \* that has been acquired by the old firm in carrying on its business, whether connected with the premises in which the business was previously carried on, or with the name of the late firm, or with any other matter carrying with it the benefit of the business."

Purely local as the character of goodwill is under certain

\* 60 Pa. St., 181.

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conditions, as for instance in the case of a hotel whose attractive and convenient location is primarily responsible for the vogue which it enjoys, it may be said to be more commonly personal. If Steinway and Sons were to sell their business and their name to a firm who found it advisable to transfer the plant and the selling agency from New York to Boston, it is certain that the goodwill of the musical world would not be affected by the change.

It is precisely that element of personality, possessed by goodwill, which links it so naturally to types of organization in which the names of the supposed proprietors are known, that is to say, sole proprietorships and copartnerships. It is also on that account that the courts have ruled that the goodwill of a partnership does not inure to the benefit of the surviving partners, but belongs to the purchasers of the firm name,\* and that the goodwill of a market stand or stall, the lessee of which has died, is independent of the stand itself, and belongs to the estate of the deceased.<sup>†</sup>

Goodwill is very frequently referred to as an "intangible asset," that is to say something the existence of which is spoken of, but is not palpable. Intangible as it may be by itself, it must nevertheless rest upon something tangible; it is not conceivable, for instance, that a skilled surgeon, whose fame is far-reaching, could sell the goodwill of his practice to an unknown confrere whose skill has yet to be demonstrated. There is nothing tangible in the assurance of the vendor surgeon that his patients will be willing to entrust their lives to his successors. Goodwill, in this case is non-existent as a marketable value, since it depends upon personal skill, which is not to be acquired through purchase. On the other hand, a physician practising without competition in a rural district could in all propriety place a value on the goodwill of his practice, provided he were to agree to recommend the purchaser to his patients as fully capable of giving them equally skilled service, the vendor at the same time agreeing to retire, or to move to another state or to another part of the same state. Goodwill, in this case would rest upon the monopolistic prerogative of the vendee. This is so true that if the vendor subsequently performed an act which would tend to

\* *Slater v. Slater*, 175 N. Y., 148, 1908.

† *Journe's Succession*, 21 La. Ann., 891.

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defeat the certainty of monopoly—such for instance as announcing the resumption of his practice in the field of his former activities—the courts would invalidate the contract, and relieve the aggrieved vendee of his pecuniary obligations under the contract of sale.\*

The nature of the goodwill of corporations appears to be quite different from that of the goodwill of sole proprietorships and of copartnerships. When corporations sell their assets, it often happens that the identity of the vendor is lost in that of the vendee. In this case the purchaser does not expect that the customers of the vendor will resort to the old place. He acquires the earning power of an established business whose products will sell, no matter who offers them for sale. He may also, perhaps, figure that with more up-to-date methods of conducting the business, through the application of scientific economy and the union of forces which, up to now, have been antagonistic, larger profits will be obtained than could be had before the consolidation of interests took place. For this he is willing to pay a sum of money which may be far in excess of the value of the tangible properties acquired.

In the absence of a better term accountants as well as laymen are generally satisfied to call their excess price goodwill; but the frequency with which the excess of cost over the intrinsic value of the properties acquired is distributed by boards of directors over the value of the individual property units included in the purchase, no mention whatever being made of goodwill, indicates that there is some deep-rooted objection to the term, at least from the point of view of corporations.

There are, in fact, many instances of consolidations of corporations, where the application of the word goodwill to the excess price paid by the consolidating interests over the intrinsic value of the properties acquired would be equivalent to an attempt to mislead, or to an admission of ignorance of the conditions which brought about the combination. The earning power of, say, three corporations to be consolidated, may have been reduced to a negligible quantity by the keenness of the competition in which they have engaged. If that earning power were to be used as the basis for the computation of the value of goodwill in accordance with the rules which are said to prevail in such

\* *Townsend v. Hurst*, 37 Missouri, 679.

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cases, there would remain a minus quantity to express it; and yet the stockholders of the three competing companies may not feel disposed to combine, unless they receive a considerable amount over the intrinsic value of the properties which they control. Thus, so far as earning power is concerned, the bonus paid does not apply to past performances, but to confidence in the future. If the word goodwill applies to anything, under these conditions, it must be to that harmony which the consolidation has brought about among forces which up to now were only desirous of destroying one another.

It should be said, however, that while any reference to goodwill may properly be eliminated from the books of a corporation which absorbs other interests in such a manner as to cause the identity of the vendor to be entirely lost, it should be retained as an asset of a corporation which takes over a copartnership or a sole proprietorship, principally when the vendee concern retains enough of the name of the vendor to preserve the personal character of the goodwill purchased.

The importance of the asset goodwill, when it has been acquired by purchase, cannot be over-estimated. There is no other asset of a concern, the sale of which would be so effective in bringing operations to an end. In some instances it has been held by courts of law that under the terms of a contract for the sale of goodwill, the vendor has no subsequent right to solicit trade in the section of the country in which he previously operated, even among people who were not his customers at the time of the sale.\* The sale of goodwill may even prevent an individual from using his own name in connection with the line of business in which he was engaged prior to the sale. JUDGE BATES (*Law of Partnerships*) quotes a case in which Beatty and Gage formed a partnership whose most valuable asset was a series of copy books, known as *Beatty's Head Line Copy Books*. They dissolved, Gage buying out Beatty's interest for \$20,000.00. It was shown that a large part of the price was for the right to the copy books. A publishing company, with Beatty's assistance, got out a new series called *Beatty's New and Improved Head Line Copy Books*. This was held to be an infringement of Gage's

\* *Munsey v. Butterfield*, 138 Mass., 492.

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rights, the word Beatty, as applied to the books, being a valuable asset which passed to Gage.\*

Why goodwill, having been acquired at a cost which is somewhat considerable, and constituting in some instances the only truly valuable asset of a concern, should be outlawed, and sentenced to gradual expulsion from respectable books of account, is one of the perplexing puzzles which accounting offers to its students. Accountants who would never permit the reduction of a physical asset by the estimated amount of depreciation which it may or may not have suffered during a given period have no scruples at all when it comes to goodwill. Still, it seems that if a concern has paid a large sum to acquire the goodwill of another, and has not only retained it, but even increased it, there is no apparent reason why so-called conservatism should demand the writing off of the asset, to the detriment of the very profits which its purchase gave the right to expect.

One of the reasons frequently advanced in favor of this writing off policy is that the valuation of goodwill, being based on a given number of years' average net profits of the vendor concern, less a fair return on capitalization, its cost is consumed concurrently with the effluxion of the period for which it has been purchased. This is, indeed, an extreme view. It is unequivocally expressed in DAY's *Accounting Practice*: "Goodwill is a legitimate asset in an industrial enterprise and the most accepted method of computing the amount of goodwill is to take the total profits for the last five years and deduct from them five years' interest on the capitalization at seven per centum per annum; the balance is goodwill. The rate of interest is based on the assumption that no capitalist would invest in an enterprise unless he were assured at least seven per cent annual return. Goodwill should be written off the books during five subsequent years, by charging off one-fifth against each succeeding year."

As opposed to this view, which we have characterized as extreme, the following quotation from DICKSEE's *Auditing*, American edition, may be of interest: "Goodwill does not depreciate. On the other hand, it will generally be conceded that it is liable to fluctuations both continual and extreme; \* \* \* as a matter of fact goodwill is not written down because its value is sup-

\* *Gage v. Canada Pub. Co.*, 11 Ont. App., 402; aff'd, 6 Ont. Rep., 68.

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posed to have become reduced—such a course is all but unknown. The amount at which goodwill is stated in a balance sheet is never supposed to represent either its maximum or its minimum value; no one who thought of purchasing a business would be in the least influenced by the amount at which goodwill was stated in the accounts; in short, the amount is absolutely meaningless, except as an indication of what the goodwill may have cost in the first instance. Inasmuch, therefore, as nobody can be deceived by its retention, there is no necessity for the goodwill account to be written down. On the other hand, the practice is not unusual, where sufficient profits are being made. The question is not, however, one upon which the auditor is required to express an opinion."

It is generally recognized that the question of the value of goodwill does not arise until a sale is contemplated. Thus, it does not seem possible for a concern, which has organized otherwise than by purchase of an already established business, to create the asset goodwill during the course of its operations as a going concern. Still, if it is considered proper to set aside the expenses of organization in an account which will be reduced periodically during the years to which the benefit derived therefrom applies; if, further, it is agreed that corporations have the right to spread the loss incurred through discounts on bonds over the life of the bonds, there does not seem to be a valid objection to the charging of the operating shortcomings of what might be called the "probation period" of a newly established business to an account which would record the cost of obtaining the goodwill of the community.

We often hear of concerns which expect to lose money during the first five years of operation, owing to the heavy advertising which they will have to do in order to call the public's attention to the value of their goods. If the cost of such advertising is charged to expense, together with other lavish expenditures which a newly-established business is bound to make at the start, to win the favor of those whom curiosity alone attracts to the establishment, a considerable deficit may be shown. Would it not be better to raise an account with goodwill, which would be made to reflect the extraordinary cost of establishing the business, and to distribute that cost over the future periods which are to be benefited thereby?

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## PATENTS

*BLACK'S Law Dictionary* defines a patent: "A grant made by the government to an inventor, conveying and securing to him the exclusive right to make and sell his invention for a term of years."

Thus a patent is nothing short of a monopoly granted by the state, presumably as an inducement to the inventor to disclose the secret of his invention for the benefit of the public at large. The territory over which the monopoly extends is mentioned in both the letters patent issued to the inventor and in the statute authorizing the issue of patents. United States patents apply to all the states and organized territories, as well as to American vessels on the high seas. They do not, however, apply to foreign vessels in American ports. In certain foreign countries—England for instance—a patent which has not been operated for four years may be revoked, but in the United States the right of the patentee is not thus affected. In England, the crown reserves the right to use the patented invention in return for fair compensation. While the United States government does not reserve that right to itself, it is within its power to use the invention by paying therefor reasonable fees to the inventor. No injunction can be obtained against the government.

In the United States the term of a mechanical patent is seventeen years from the date of grant; the term of a design patent is three years and one-half, or seven years, or fourteen years, according to the application. In England, the patent expires with any foreign patent granted before the English patent; in Canada, it expires with any foreign patent granted during its life. In the United States a patent can be extended by special act of congress.

The value at which the asset "patents" is carried on the books depends upon whether the concern which owns it is at the same time the inventor, or has acquired it from the inventor. In the former case its value is the cost of conducting the experiments which have led to the invention, as well as the cost of the fees paid in connection with the search as to the validity of the claim for the patent, and with the filing of the said claim. In the latter case its value will of necessity be what the concern which acquired it paid for it.

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Since patents grant what may be termed a legal monopoly, it is clear that they convey a sort of a title to the goodwill of the community in which the right to exclude everybody except the government from the use of the invention is exercised. This is why so many corporations which acquire the business of other concerns where a patent is included among the assets, carry the excess price paid over the intrinsic value of the property acquired under the term "patents and goodwill," or merely spread it over the value of the patents.

If the monopoly granted by the patents lasts only for a term of years, it would seem that the asset should be written off during the life of the grant. This can be done in two ways:

- (a) Credit patents and debit profit and loss with equal installments corresponding in number to the number of years during which the patent is to be operative.
- (b) Credit patents, or reserve amortization of patents, and debit one of the components of the cost of goods sold with periodical amounts representing the probable royalty which would have to be paid on the sales if the patents were leased instead of owned.

If the reserve account has been created, debit it and credit patents as soon as the two accounts are equal in amount.

It will be noticed that method (b) makes the cost of manufacture bear the loss sustained through the natural extinction of the very asset which made operations possible, and created a legal monopoly; and, further, that it leads to the peculiar conclusion that the income from sales becomes larger as soon as the asset patents has been eliminated.

It should be stated that, instead of being written off, patents have frequently been appraised on the basis of the saving in royalties which their possession affords, precisely as waterpower rights have been appraised on the basis of the saving in fuel and power producing machinery which the privilege to use natural forces guarantees.

There exists another theory, to the effect that while it is true that patents expire within a certain number of years, the benefit deprived from them by the business does not expire concurrently. It is pointed out that the species of monopoly granted by patents is bound to create a considerable amount of goodwill,

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the existence of which is appreciated by would-be competitors, and deters them from engaging in a line of business which has been for so many years the exclusive domain of an established concern. Under this theory it would be possible to retain the asset patents long after its legal termination by transferring its value to the account goodwill.

### TRADE-MARKS

A trade-mark is nothing more than a conventional sign which, for commercial purposes, has the same effect as the signature has upon a written document—both certify to the genuineness of the thing to which they are appended.

Trade-marks make it possible for their owners so to earmark their goods as to make them easily recognizable by buyers. In other words they guarantee that whatever goodwill attaches to the product will be certain to revert to the proper party. In the case of *Liedersdorf v. Flint*, 15 Fed. Cases No. 8,219, it was said: "The court proceeds upon the ground that the complainant has a valuable interest in the goodwill of his trade or business, and that having appropriated to himself a particular label or sign or trade-mark, indicating that the article is manufactured or sold by him or by his authority, or that he carries on his business at a particular place, he is entitled to protection against any other person who pirates upon the goodwill of his customers or of the patrons of his trade or business, by sailing under his flag without his authority or consent."

Since an unauthorized use of trade-marks constitutes an infringement of the owner's right to exclusiveness, it may be said of them that they confer a monopoly different from the one obtained under patents only in that its duration is not limited by statute, and can be exercised as long as one desires to use the marks for trade purposes. Thus, the main distinction between patents and trade-marks is that the former need not be used to remain in force, whereas the latter must be.

While the cost of trade-marks may be insignificant when acquired otherwise than by purchase from former owners their value may be considerable, because the very success of the goods which they protect means the acquisition of the goodwill of the trade, to which these goods are offered for sale. If trade-marks

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have been acquired from another concern, their cost may be high, owing to the goodwill which they convey. No matter what their cost may be, their influence upon the prosperity of the business is so well defined that they are entitled to a place among the invested values of the enterprise. If kept in force their value should not be written off. If abandoned they may be closed by debit to profit and loss, precisely like all other assets which have outlived their usefulness; or they may be written off gradually during a period of years, upon the theory that, although given up, they have brought goodwill to the business of future years; or again their original cost may be transferred to goodwill, to be written down with that asset if such is the policy of the concern.

#### COPYRIGHTS

BOUVIER'S *Law Dictionary* defines copyrights as follows: "The exclusive privilege, secured according to certain legal forms, of printing, or otherwise multiplying, publishing, and vending, copies of certain literary or artistic productions."

Like trade-marks and patents, copyrights give a monopoly; but in this country the privilege is limited to a term of twenty-eight years from the time of recording. The term can be extended for a further term of twenty-eight years, upon request by the author, his widow, or his children, within six months of the termination of the original grant of twenty-eight years. This privilege of extension is not conveyed to the assignee, unless so provided in the contract of assignment.

Copyrights are personal property and as such, they may be willed. In the absence of a will they descend to the natural heirs.

The nature of the species of monopoly granted by copyrights consists in the privilege enjoyed by the owner or his assignees or full licensees to prevent any unauthorized sale of the copyrighted works, and the publication of mutilated parts thereof.

The question of the value of the asset copyrights is a complicated one. The original cost of obtaining the grant is insignificant, unless the value of the time consumed in the preparation of the work be capitalized, together with the expenses incident

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thereto and the cost of such preliminary advertising as may have been deemed necessary.

In the case of copyrights which are valuable only to the original grantee—such, for instance, as catalogues, price lists and advertisements—the cost of plates, etchings, half-tones, etc., may be added to the value of the asset as stated above. But in the case of assignable copyrights, the plates, etchings and half tones are so independent of the right itself that they can be sold without giving the purchaser the slightest claim upon the copyright, unless the contract provides to the contrary.

The probable value of assignable or salable copyrights depends to a great extent upon an estimate of the vogue which they will enjoy; their real value depends upon past performances so far as public favor is concerned, as well as upon an estimate of the continuation of their vogue.

Copyrights, being a monopolistic grant, raise naturally the question of goodwill. A copyrighted work may have proven a financial failure, and yet have obtained an artistic success such as to lift its author and its publishers to a very high plane in the favor of a certain class of readers. If the defects which made it commercially unprofitable can be remedied in future works of the same author, the goodwill which the first production has acquired may enhance greatly the commercial success of subsequent copyrights. Hence, the losses sustained by the poor seller might be capitalized under the name of goodwill, or added to the value of the copyright, at least until such time as the retroactive effect of subsequent successful works upon the unsuccessful one has been ascertained.

## FRANCHISES

Franchises have been defined thus: "A branch of the sovereign power of the state, subsisting in a person or in a corporation, by grant from the state." This definition has been assailed, upon the ground that it fails to establish a proper distinction between "primary franchises," and "secondary franchises."

Primary franchises are special privileges, not generally possessed by individuals, which are granted to them by the state in pursuance with a well-defined policy of government or of

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business control. They include the right of perpetuity of purpose and of life, which corporations obtain by virtue of their charter; the privilege of limited liability which certain forms of organization receive from the state, as well as all the other special privileges which their legal status conveys and the rights and privileges which all citizens enjoy under existing statutes, or in accordance with the spirit of the common law.

Secondary franchises, at least under the American system of government, originate through a contract made, upon valuable consideration, between the sovereign power and individuals or corporations. The consideration for the contract may be monetary, or it may be only the public value of the services to be rendered by the party seeking the grant. They include in the language of the supreme court, "rights and privileges which are essential to the operations of the corporation, and without which its road and works should be of little value such as the franchise to run cars, to take tolls, to appropriate earth and gravel for the bed of its road, or water for its engines, and the like." \*

The main distinction between the two classes of franchises, so far as organized business codes are concerned, is that the former (primary) cannot be alienated, assigned, mortgaged, or otherwise disposed of, while the latter (secondary) may be, if proper authorization is given by the sovereign power which made the grant.

Generally speaking, secondary franchises are monopolistic and permanent rights "to do an act, or a series of acts of public concern." † They constitute a contract between the grantor and the grantee, which cannot be revoked unless the grantor specifically reserves to himself the right of revocation.

The characteristic feature of franchises is that they must be granted by a sovereign power. Under this interpretation of the nature of the grant, it has been claimed that the privileges conferred by the municipalities are not franchises but merely licenses.‡ On the other hand, it has been held if the grantee of the municipal licenses has given adequate consideration, (such as a promise to pay to the municipality a certain proportion of its earnings or of its net profits), the grant ceases to be a license and

\* *Morgan v. Louisiana*, 98 U. S., 217, 28 L. Ed., 860.

† *Southampton v. Jessup*, 182 N. Y., 122, 126, 56 N. E., 538.

‡ *Chicago City R. R. v. People*, 78 Ill., 541.

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becomes a franchise which is in the nature of a binding contract, and cannot be revoked at the will of the grantor.\*

The legal doctrine which attempts to establish a difference between franchises granted by the state and those granted by municipalities is generally thought to be unsound, upon the ground that municipalities, being state corporations and part of the body politic, are mere subdivisions of the sovereign power. The question as to whether or not the grant of a franchise by a city is an infringement of the right of the state appears to be one of legal proceedings, and not a question of facts.†

In connection with the components of the book value of the asset franchises, when possessed by public service corporations, the public service commission of the first district of the state of New York has ruled:

"To this account shall be charged the amount (exclusive of any tax or annual charge) actually paid to the state or to a political subdivision thereof, as the consideration for the grant of such franchise or right which is necessary to the conduct of the corporations. If any such franchise is acquired by mesne assignment, the charge to this account in respect thereof must not exceed the amount actually paid therefor by the corporation to its assignor, nor shall it exceed the amount specified in the statute above quoted. Any excess of the amount actually paid by the corporation over the amount specified in the statute shall be charged to the account 'other intangible street railway capital.' If any such franchise has a life of not more than one year after the date when it is placed in service, it shall not be charged to this account but to the appropriate accounts in 'operating expenses,' and in 'prepayments' if extending beyond the fiscal year.

"Payments made to the state or to some political subdivision thereof as a consideration for granting an extension for more than one year of the life period of a franchise shall be classed as renewals. Those made as a consideration for franchises or extensions thereof covering additional territory to be operated as a part of an existing system shall be classified as betterments. If the franchises cover separate and distinct new enterprises, the payments therefor shall be classed as original. Note: Annual or more frequent payments in respect of franchise, must not be

\* *Chicago Municipal Gas Light, etc., Co. v. Lake*, 180 Ill., 42, 22 N. E., 616.

† *East Cleveland R. Co.*, 6 Ohio Cir. Ct., 818.

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charged to this account, but to the appropriate tax or operating expense account." \*

This debars a public service corporation, which falls under the commission's supervision, from charging to the account "franchises" the cost of obtaining the consent of the property owners, and the cost of the legal expenses incurred in connection with obtaining the grant. Generally speaking, however, such expenses are thought to be properly capitalized under the heading "franchises" by companies not controlled by the commission, together with the consideration for the contract between the grantor and the grantee, i. e., the amount paid to the state or political subdivision thereof. As to the propriety of capitalizing legal expenses, the question remains an open one; some accountants claim that such capitalization is faulty whenever the company which is the beneficiary of a franchise has a permanent legal department as part of its administrative organization.

Any other cost incident to or necessary for the enjoyment of the franchise, such for instance as the cost of paving between tracks, may be capitalized in some other property account, such as paving, track and roadway, etc.

The payment to a municipality of a portion of the earnings from operations, in accordance with the terms of a franchise grant, is considered as a burden of the asset, and cannot enter into its valuation.

\* § 55 of the Public Service Commission Law.

## The Education of Employees\*

BY LEE GALLOWAY, PH.D.

Can the strenuous business man, manager, superintendent, foreman and chief clerk even pretend to give the men below them systematic and personal supervision for purposes of general instruction in the duties of their departments and in the broader bearing of their departmental activities upon the business as a whole?

If the men of superior positions and opportunities cannot instruct the men lower down, who then is to teach them? The majority of men in the minor business positions left school before they finished the grammar grades. They have been thrown into a complex business life without a broad cultural background and without the power of close and continuous intellectual concentration. Will any gas company acknowledge that its business does not call for these qualities in its employees? If I understand the position which our gas companies hold in the social system of today, there are duties and obligations to be met by them which are calling for the highest type of men to fill not only the managerial and highly skilled mechanical positions, but the subordinate positions as well.

The gas company is not selling gas alone. It is selling gas *plus* service, and the manufacture of that service is just as complex as the making of gas. A company which found one of its machines unable to meet the requirements put upon it would not hesitate to spend months or years, if need were, to perfect it. The company would realize that not only is there loss due to the small quantity of poorer quality of this single machine's output, but that the whole product is affected. No process made up of interdependent operations is stronger than its weakest machine.

The manufacture of service by a gas company is controlled by the same principle. The men in the complaint department may be all that could be asked for in intelligence, courtesy and tact, but one man in the distribution department may so nullify these good effects by a lack of knowledge of the company's

\* A paper read before the National Commercial Gas Association, at Atlanta, Ga., December, 1912.

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policy or through a lack of appreciation of the necessary co-operation, that the product, *i. e.*, service, is greatly depreciated. The distinguishing feature of our modern methods of manufacture is the division of the processes into many minute operations. But the finer the division into which these processes are separated, the greater the necessity of coördinating the production of each department with that of every other department. To do this work most efficiently skilled mechanics are employed to study the machines, the methods and the products continually. It is only by this means that gas is kept up to the standard. If it is not stretching the imagination too far, it might be said that the machines and the material are continually improved and taught to do the work effectively. When skilled mechanical engineers are employed to do this work little complaint is found. In fact, so general is the practice today that no firm would consider itself well equipped if it did not have a trained staff of mechanical experts to study and improve the machinery and coördinate the various operations. Yet this department had to fight its way against prejudice and ignorance. The foreman, the superintendents, the managers all thought they knew more about machines than any expert mechanical engineer.

Now, if it is important that the equipment of a plant be studied and continually improved in order to obtain a high quality in its material product, how much more important is it that the men of the company be instructed and improved so that the service product may attain the highest standard of excellence. If the material goods of a gas company must be continually improved to meet an exacting consumer's demand, how much more improvement is necessary in the *service* of a company which must keep pace with a public demand not only recently awakened to new necessities but to its rights and privileges as well. Mechanical inventions advanced the gas industry in the making of a suitable material product. Education must equip the employees, the men, to turn out an efficient service product. The power of a machine comes from without and is supplied by invention. The power of man comes from within and must be developed by education. The conclusion is clear. If the service product of the gas companies is to reach and maintain as high a standard of excellence as its gas product, then

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the companies must educate the employees in its policy and organization.

The organization of a gas company is built up with two business policies prominently in view. One policy demands a careful consideration of the economic features of the location of plant and administrative buildings, of the arrangement of the offices, of the division of the duties between the various departments and of the selection of proper persons to perform the work. The deciding of these things may be called the determination of the internal policy of the company.

Another policy demands that the company must ever watch the points of contact between its activities as a business concern and the interest of the public it serves as a utility agent. These points of contact are found in a general way in a company's financial dealings, its franchises and legal proceedings, its manufacture and distribution of gas and in its sale and service to the individual consumers.

Whatever may have been the attitude of the gas companies in the past, it is certain that no progressive company is ignoring the points of contact with the public today. A new emphasis is being put upon this policy, and the employee who recognizes its importance to the company will see in it, at the same time, his own opportunity. But the salesman or office man cannot jump at once from the narrower province into a full realization of the public utility features of a company's programme. He must first become a thorough student of the technique of the position he is filling. Then he must study thoroughly the organization of which he is a part. He will then be in a position to study the points of contact which his company has with the state, the city or town and the customer.

### A MODERN APPLICATION OF AN ANCIENT BIT OF PHILOSOPHY

In order to anticipate a question which we feel sure will arise in the minds of some, let us see in what way a knowledge of other departments than the one in which an employee works may increase his own efficiency and that of the company as well.

Did it ever occur to you how much energy and time are

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wasted through departmental rivalry and jealousy? Did you as an employee ever feel that your suggestions were lost and your efforts unappreciated by some other department, perhaps your own? Did you ever feel that the "boss" who came to his desk of a morning, read his paper, smoked a cigar, gave a few directions to his stenographer, and then rode away in his automobile to lunch was a sort of parasite? Did you ever give up a good idea because you knew that "company politics" would bar or hinder its acceptance? These are only samples of the familiar queries that might be put, and the answers to them would show a lack of coöperation and the presence of enough friction to counterbalance all the good that might come from the latest systems and methods of management. Ninety per cent of the jealousies, of the apprehensions of being displaced in the favor of the "boss" by a rival, of the petty politics and criticisms of superior officers would disappear if the employees of a company knew the character of the work performed by the other departments. Old ÆSOP had a word to say along this line that has not been better said since his time. It is very applicable to the present attempts of every big corporation to bring about a greater measure of departmental coöperation. It is as follows:

"One fine day it occurred to the Members of the Body that they were doing all the work and the Stomach was having all the food. So they held a meeting, and after a long discussion, decided to strike work until the Stomach consented to take its proper share of the work. So the Hands refused to take the food, the Mouth refused to receive it, and the Teeth had no work to do. But after a day or two the Members began to find that they themselves were not in a very active condition; the Hands could hardly move and the Mouth was parched and dry; while the Legs were unable to support the rest. So thus they found that even the Stomach in its quiet way was doing the necessary work. For the Stomach and all must work together or the Body will all go to pieces."

The "boss" who puts the pay in the envelope on Saturdays may be doing his best thinking between puffs, and the superintendent of a department may be digesting plans and directing policies of which the employee cannot of necessity know anything. But the employee not knowing the what, the where or

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why of anything in his organization becomes suspicious of every movement and, like a near-sighted horse, shies at every shadow. To overcome this skittish attitude many companies have attempted to drive their employees with blinders. This method, however, in our present large organizations, where much responsibility must be put upon the employees, is no longer effective. It is better to show them the unsubstantial nature of shadows. No employee is in a position to see the big ideas which the company represents before the public until he knows what his own department stands for within his organization. When he understands the meaning of his company's organization he is ready to be educated in the company's public policies.

If gas companies want their representatives to stand for the big idea of public service they must instruct their employees so that they may grasp that idea. The company must see to it that the community is not better informed than its representatives. It is quite possible that a company's advertising may be more conspicuously displayed before the public in general than before its employees. It is therefore, also possible that the consumers may read and believe "the public be pleased" signs of public service corporations while the employees of the same company may remain in ignorance of either the sign or the methods necessary to carry out the policy.

A man is no bigger than the idea he can master. The idea of service is to the public service corporation what the force of gravity is to our planetary system. Those races or those individuals that do not grasp the idea of the latter are always filled with suspicion and fear of the commonest natural phenomena. The employee who does not comprehend the meaning of public service is likely to be filled with similar emotions at the company's goodwill policies.

Both of these ideas are abstract, and it is not enough to state the law of gravity to the student of science or to repeat, day in and day out, to the employee the law of public service. He cannot grasp it until it is put into concrete form—until it is demonstrated. But the question will be asked: "Is not everyday business a practical demonstration of the policy of the company?" It might just as well be said that the revolution of the planets about the sun and the falling of the rain are also continuous demonstrations of the law of gravity, yet how many men

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would associate the same influence with the control of the two phenomena? How many men would be capable of discovering the law of gravity if left to themselves? NEWTONS and GALILEOS are scarce. Likewise are the men scarce who first put the hyphen in "public-service."

The knowledge which was first the possession of a few scientists and business executives can be imparted by proper instruction to the humblest student of science or of business. A simple laboratory device will give the scientist student a clear comprehension of the law. The rest of his education consists in following out its various applications. In business also the instruction in public service must be given so as to impart the principle by means of a concrete demonstration and to show the employee the law of the power of attraction through service.

The number of failures "to make good" in any large office emphasizes the necessity of providing some sort of training for the men who are expected to succeed and stay with the company. The few who have ultimately worked out their own salvation did it by obtaining this knowledge by the most difficult method, and they would have fallen by the way but for their grit.

Many of these failures are due to incapacity, but more are the result of discouragement, which comes through the inability of the employees to see the meaning of the situation into which they are forced.

The manager employs a young man and puts him to work after a few brief words in explanation of what the company expects of him. From this the employee is expected to catch "the idea." To the employee this idea is an abstraction. He has no way of "seeing it." He knows nothing of the real meaning of "service." Yet the idea that he is to represent a great and powerful company fills him with enthusiasm. To the new recruit in business this idea has all the glamor, all the inspiring qualities, all the incentives to begin his work that the big selling campaign has for the new business manager, that the revolutionary theory has for the chemical expert in the production department, that the momentous and unperfected invention has for the mechanical expert. Such ideas have the power of taking possession of a man, and they will either hold him in their grasp or compel him to slink away from the task—the re-

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suit depending upon his ability to embody these ideas into concrete realities.

How to make over the idea into a concrete reality is a problem which every manager should try to solve. As a rule, the idea which the sales manager impresses upon his men is to get out and get the business! He hands out a catalogue, outlines the boundary of the territory to be covered, salts the main idea with a few platitudes about perseverance, grit, tact, etc., peppers it further with a few personal experiences in proof of his own successes and sends them out flushed and boiling over with enthusiasm for the "big idea." To represent a great gas company, to go out and get business for it, is an inspiring thought, but it can seldom result otherwise than fatally to the sales manager who is unable to break up the big idea into reasonable "stints" for his salesmen to work upon. The majority of men keep staring at the whole problem, and the longer they gaze at the whole problem, the more worried they become at its magnitude, its difficulties, and its constant demands. Soon their enthusiasm is gone, then their courage, and finally their interest and—their job. And this generally happens to the very men who are most worth keeping—the men who can grasp a big idea and become enthusiastic over it, the men who have championship ability but who have not been brought up to form by training. The man with little ideas attacks his job in a small way, but he gets something done and out of the way each day. He is not worried about the size of his territory or the spirit of public service. A gas tip sold is his idea of "getting the business." He is generally enthusiastic, for he has solved in a crude manner the problem of breaking up his job into "stints." Each sale is a job finished. He has a specific accomplishment to his credit and he is thus encouraged to attack the new thing that is ahead.

If a gas company wants all its salesmen or all its employees to be of this calibre, perhaps the familiar practice of pushing an employee into a job and "giving him a chance to make good" should be continued. But what company is not constantly in need of men of a somewhat bigger calibre? What company has not looked over its selling force and then shaken its head when it needed a man for an executive or administrative position—a man who must understand the full meaning of the "big idea." How,

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then, may this kind of a man be induced to stay and train for promotion in the company? By introducing a systematic course of instruction for its employees the company breaks up the big idea into its various components and presents them one by one in a systematic and orderly development. As each step is finished, the employee gets the inspiration and enthusiasm necessary to attack the next point. In the meantime he is getting his practical experience in the field of business and the big idea is developing and fixing its hold upon him.

This is, of course, not simply a question of company policy, nor primarily one for pedagogical solution, yet both are important factors in shaping the attitude of the employee toward the work and determining the strength of his allegiance. In the first place, the company must be sincere in its efforts to expand the intelligence of the employee. A policy which uses its educational efforts simply for advertising purposes will gain suspicion rather than allegiance. The American employee rightly resents any attempt to exploit his needs either for industrial betterment or for more education. No ulterior motive should inspire the company's educational plans; the development of the employee and the consequent gain to the company by being conducted by intelligence rather than by ignorance and prejudice is the only true basis for establishing a company school. Education at this point serves a double purpose. It not only enables the company to carry out its public service policies with effect—a sufficient gain in itself—but it enables the company to gauge the ability and aptitude of its employees for the higher managerial positions. Nepotism has proven itself as ineffective in business as it has in the church and the state.

#### HOW KNOWLEDGE OF BUSINESS PRINCIPLES HELPS THE SALESMAN

If the gas employee is ever to step over the boundary which separates the men of routine activities from the men of directive performance, he must saturate his mind with the larger ideas underlying not only the business which he represents, but business in general as well. He will soon discover that the fundamental principles upon which the gas business is built lie at the foundation of every great commercial undertaking of to-

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day. When the student of business has mastered these ideas and made them a part of his every-day thought he has prepared himself for advancement.

Such instruction has gone far toward making him a fit representative of a great industry. Every gas company desires its representatives to be able to meet with confidence and dignity the successful business men of the community. This is the employee's opportunity. The reason so many managers and other executives are chosen from the ranks of successful salesmen is that the salesman has opportunities of proving that he is not afraid of the men in his community who represent big ideas. It makes little difference whether these men are lawyers, doctors, clergymen, merchants or manufacturers. Their success depends largely upon their administrative ability in dealing with business matters. The salesman, therefore, who knows the fundamental principles appertaining to all businesses and thoroughly grasps their full significance has a ground of approach common to all classes of men. More than that he is on a common level with the big men, for it is their ideas that make them big. The salesman who feels familiar with the principles of corporation finance, of accounting, of transportation, of speculation and investment, of money and banking, of business organization, etc., etc., is in a true sense familiar with the ideas of men who manage things. No salesman need be embarrassed for the want of a suitable topic of conversational approach if he is filled with the facts and principles of business. In the office, in the shop, or in the market place his mind is continually fed with suggestions all bearing directly upon his "prospect's" business interests.

It is astonishing how the mind grows upon what it feeds. The habit of marshaling details of business facts until they form themselves into easily grasped classifications soon shows itself in the ability of the office employee or the solicitor to handle more and more work with increasing ease and efficiency. It is a change of this kind which takes place in those men who, having been raised from positions of obscurity to positions of responsibility, are said to have succeeded in their undertakings. Their success is due to their having expanded sufficiently to meet the greater duties imposed upon them. Expansion in this sense is simply the ability to adjust one's actions and decisions to a new environment both within the business

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itself and without. The successful manager has discovered the principles upon which his position stands and has traced them into all the other lines of related business activities.

It is not necessary, however, to wait for chance circumstances to force the salesman or office man to expand. Every MICAWBER who is waiting for something to turn up has that chance. There should be sufficient opportunity for every employee desirous of advancement to study the principles of business as they have been expounded by corporation heads and industrial managers. If the corporation would give employees this chance, the educational opportunity for them would be quite complete, for while the employee is mastering the theory of business, he cannot complain of a lack of "laboratory practice." Is not each business day filled with experiments? What student of chemistry ever had such acid tests or quick reactions as the modern business man who takes his theories into his laboratory—the office, the factory or the "street"—and puts them under the test of the formula: "Does it pay?" Any company which ignores for any length of time the legitimate claims of the employee capable of doing better things and taking bigger responsibilities does so at its peril. Officers of large corporations are finding it cheaper to put indigent and incompetent relatives on an allowance and to permit them to run high speed automobiles. Knowledge, like lightning, may strike hard, but it purifies the atmosphere.

WHAT SHOULD BE TAUGHT

So far nothing has been said about the subjects that should be taught or how to teach them. Let it be observed that the student of business does not ignore science, history, philosophy, law, engineering, mathematics, economics, psychology, etc. These are all more or less closely related and interwoven with every business organization. But from our point of view they are not ends in themselves. The corporation is interested in turning out the best product possible under the conditions imposed upon it by manufacture, financing, marketing and recording the results. These four fundamental activities constitute the basic functions into which every business organization can be separated, but when the infinite number of relationships, subdivi-

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sions of operations, employments, departments and duties are considered, the organization of a company offers a field for investigation and study not inferior to that of science, history or philosophy.

Yet at the bottom of the organization of every business there are underlying principles according to which every business structure is erected. The most fundamental of these principles is that of functionalization. According to this, every department, activity and duty depends upon a function. By following the principle of functional organization we find that each of the four basic activities of a business is subdivided into many minor activities. Thus production has as its goal the adding of certain values or utilities to the goods. One process in the production department will store the goods, thus giving to the articles a certain time value, because they are ready to be had when most wanted. Another department will give the articles the correct form or shape, and another department will see that the goods are put in the right place at the right time. In fulfilling these functions of the production department, a number of minor departments are necessary, hence the ordering, receiving, storing, manufacturing and transportation within the plant. And, of course, there are the means by which these things are accomplished—the men, material and machines.

The financial activities have for their purpose the obtaining and maintenance of the credit and capital. These are divided into fixed capital and current finances. The fixed capital may be designated by land, plant and tools, and the current finances by cash, credits and collections. Finally, these are represented by stock and bonds, book accounts and notes. The means by which these activities are carried out are the banks, trust companies, brokerage agents, etc.

The accounting department embraces the chief function of recording the financial and statistical data of the company. This is done by means of books, forms, diagrams and reports. It will be noticed further that the accounting touches every department.

The marketing activities of a concern may be divided into three sections—buying, advertising and selling. These may be further divided into current transactions or long-time contracts. The means by which these activities are given expression are

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the wholesale, retail or mail order, and in the case of advertising, the mediums of publicity, such as the newspaper, bill boards, booklets, etc.

Surrounding these prime functions of a business is the all-inclusive science of organization and administration. Its function is to keep the whole enterprise upright, and to guide the combination of the various forms of mechanical, material and human energy into the final result, the ultimate goal—the profits.

With this bare outline of business functions before us we see the possibilities of grouping the information and principles necessary to the operation of a modern business into suitable schemes for purposes of study and education. The field of business is being broken up that it may be the better studied by men who by no possible means could grasp all the principles through experience alone. Many larger corporations are finding it necessary to instruct their employees in the organization of their industry, in the functions of the various departments and in the public policies of the corporation. To do this they select the special business activities which appertain to their particular business and educate the office men, their salesmen or their shop employees, as the case may be, in the principles of those special branches.

A bond investment house, one of the largest in New York, has selected its educational courses primarily from the field of financial organization. It requires its employees to study corporation finance, foreign exchange, the money market, theory of investments and analysis of current security flotations, speculation and the stock market. In addition to these practical subjects it further requires the men to pass an examination in political economy, money and credit and the principles of salesmanship. At the same time the employee is instructed in the procedure appertaining to the methods of the house itself.

A large New York banking concern has selected a somewhat different course of study. This institution requires its men to take a regular course made up of the more elementary technical studies, such as business correspondence, French, German, Spanish, penmanship, commercial arithmetic and bookkeeping. This course is given the first year and then a more advanced course is outlined for the more ambitious and capable men. The course contemplates the study of subjects selected from the fields of

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political economy, corporation finance and business organization.

The educational features of the big electric companies are so well known that little reference need be made to them except perhaps to show the recent emphasis that is given to the instruction of the office force of those companies manufacturing electric appliances. The object is to train men in the art of illumination and salesmanship. The men are therefore given training in the principles of these subjects, but additional instruction is given in electrical engineering, central station practice, lamp manufacture, etc., as it may be necessary.

It will be of interest to examine the educational programme of a large central station electric company. Besides the technical courses in electricity which have been running for the past six years, one company has instituted courses for its clerical employees and sales force. The clerical employees are given a year's instruction based upon the accounting practice of the company. The course includes lectures on the work of the other departments, which amounts to a course in business organization, with the object of acquainting those employees with the technical and commercial activities of the company. The course is divided into four principal parts, *i. e.*, theory of accounts, local practice, general and public policy and descriptive lectures.

The commercial courses prepared especially for the salesmen have been carefully worked out. The salesmanship problems of the central station are much different from those of the manufacturing concern. More responsibility rests upon them. Like the representatives of the gas companies they help form public opinion regarding the corporation.

This instruction as laid out covers two years. It embraces an elementary and an advanced course of study. Both the method and the purpose show that the company is attempting to do real educational work. Not only must the employees take this work, but they must work out answers to questions covering the lessons of each month. This method, of course, requires an educational manager and staff instructor.

To make the first year's work effective the instruction is grouped about three central ideas, (*a*) the elements of central station business getting, (*b*) fundamental principles of electricity, (*c*) basic principles of individual efficiency. Accordingly

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the lessons on selling and efficiency are alternated with lessons appertaining to the technical features of the business.

Since the problems of service to the public are much the same in public corporations it may be well to give a list of those lesson topics which have been a success as proven by this company to its satisfaction. Starting with a lesson on *The Value of Right Thinking*, the course continues as follows: *Soliciting the Lighting Business, Courtesy, Soliciting Power Business, The Test of Efficiency, Education—What to Learn, Six Steps in Salesmanship, Basic Element of Business Correspondence, The Power of Confidence, Self-Development, The Business Lecture*.

The interest in such a course lies not so much in the pedagogical arrangement nor its logical development, but in the attempt to get the salesman to analyze his methods, his manners and his habits of life. Of course the technical lectures which run parallel with the others give the men an understanding of the product and the arguments in favor of its purchase by the customer.

The second year's lessons continue the general line of development started in course I, but are in three parts. Hygiene, health, recreation and elements of psychology are taught during the first half of the year. This course is called course II. The second half of the year is given over to the instruction of the men in the basic principles of salesmanship and their relation to business building. This constitutes course III, and in it is developed the attitude which a public service corporation should take toward the community it serves. Among the subjects so taught are *Public Service and the Public, Goodwill in Public Utilities, What Constitutes Individual Efficiency, Municipal Ownership and Operation of Public Utilities, Keeping Pace with the Public*.

A fourth course puts the employees into possession of the policies and organization of the company. Each department is discussed in relationship to every other. Such topics as *The Company's Methods of Handling Complaints, Organization and Scope of the Contract and Inspection Department, Relation of the Auditor to Contracts and Credits, etc., etc.*, are presented to the students, and they are expected to pass written examinations upon them.

As was stated above, the direction of such a course is in the hands of two men who devote most of their time to educational

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work. Many of the first year's lessons are presented by these two men. The more advanced courses are given by successful heads of departments in the company and by experts in their various lines from the outside. Many of these men are of nation-wide reputation.

No attempt has been made to give the outline of this company's educational work in detail. It would require a paper itself. Suffice it to say that the company spent \$10,000 last year for its educational courses on the commercial side alone. Although this is a large outlay, the company is planning to extend its work next season. From every point of view the work has been considered a success, but not least among the many gains made is the role which the educational scheme is serving as a basis for the selection of employees for promotion.

The examples given above of education of employees by various firms illustrate what might be called the intensive method of education. All these companies have paid instructors as class leaders. The class work in one case is supplemented by lectures furnished by a correspondence school; while another company helps out its regular instruction by calling in outside lecturers.

There is, however, another method which is gaining in force. By this method all or many of the companies within a given industry combine to carry out a uniform system of instruction for the employees throughout the industry. This instruction may consist of lectures and problems bearing upon the technical work of the manufacturing processes or of lectures and problems bearing upon the commercial and new business departments of the industry. Such a method requires that part of the instruction be done by correspondence. There are many advantages and some drawbacks to a correspondence course. The employee who receives printed lectures and studies them conscientiously and then writes out the answers to certain questions accompanying the text is gaining a power of independent thought which the school attendant seldom gets. And it is this power, by the way, which makes for initiative in an employee—a quality very much in demand by every company. On the other hand, the correspondence student loses the personal contact and explanation which a class instructor furnishes. This objection has been met by supplementing the lessons by correspondence with a class leader furnished by the local company. Such a leader, coming,

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as he does from the same company, brings not only a broader comprehension of the lectures than the average employee would have, but knowing the local conditions of the work he can give valuable advice when practical difficulties are met by the men.

When these lectures are prepared through the coöperation of leading authorities in the industry from every section of the country a comprehensiveness is given to them that is lacking in the educational schemes of an individual corporation working alone. Furthermore, if the papers of the students are carefully examined by a competent and impartial central authority there is an incentive for the employees to work and opportunity for them and their companies to compare the efficiency in one respect, at least, of the various companies throughout the industry.

Nearly all of the large national industrial and commercial associations of the country are agitating the question of promoting the education of employees. Among those which have only recently made special reports upon the subject are the American Association of Public Accountants, the National Manufacturers' Association, the National Metal Trades Association, the National Electric Light Association, and the American Institute of Bankers. All of these organizations are actively at work. The influence which these great national bodies are wielding in the educational field is tremendous. For example, the American Institute of Bankers has a membership of 12,000 men engaged in the business of banking. Its purpose is the education of bankers in banking and the establishment and maintenance of a recognized standard of education by means of official examinations and the issuance of certificates of graduation. Many employees of country banks are enrolled as correspondence students. In suitable cities bank employees are organized in chapters for educational work in accordance with the class methods of instruction. Elsewhere the correspondence system is employed.

Each of the great societies mentioned above has some different public policy to promote through the education of its employees. Thus the bankers wish "to banish the popular inertia and indifference," toward the reform of the currency and financial laws; and the metal trades expect from the education of their employees "to make for industrial peace," since "the mechanic

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will be able to appreciate some of the difficulties of the manufacturer."

The recognition of the employees' influence in moulding public opinion is one of the most significant features in the corporations' efforts to educate their men. If ignorance has blinded the public to the rights of the big corporations, to say nothing of the lack of appreciation of the great difficulties which these corporations have encountered and successfully overcome much to the advantage of society, it is high time that the masters of industry teach their employees—the men who come into closest contact with the public—and so relieve at least one-half of a situation where "the blind are attempting to lead the blind."

This suggests that there is an opportunity for the gas companies of America to do a great work. A selling campaign which would return high immediate profits to the company and at the same time win the market for all future time would be considered a masterpiece. Yet the education of the gas employees of the country would have an effect not unlike this. A manager of a new business department needs not to be told that his salesmen will bring in more orders if they are well informed as to their product, their selling data and their customers. But in addition to this is the gaining of the public's favorable opinion not only by being represented by intelligent and gentlemanly men, but through the public recognition of the company's effort to carry out a broad policy of education. There is no point on which the American people are more enthusiastic than that of education. If it were generally known that the gas companies of the United States were carrying out a system of education whereby not only the employees would be materially helped, but the public better served, the question of a national advertising campaign for the benefit of gas industries would be in a large measure solved.

Think what it would mean if the people of the country were made to feel that the gas companies were spending thousands of dollars to find means to serve them better. There was never a greater opportunity offered a national association than that which lies at the door of the National Commercial Gas Association. This association is in a better position to undertake the work of educating its employees than any other. It represents an industry in which there is little or no competition between

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its members. The great objection offered by the manufacturers of electrical supplies, engineering concerns, etc., is that the employee no sooner becomes a valuable man through their system of education than he leaves them to enter the shop of a competitor. A gas employee, on the other hand, who was educated in Detroit would not only be equally efficient in Atlanta, but his influence for good in helping forward a favorable public opinion would be still at work. And although Detroit would have lost a good man it would not feel that he had entered the ranks of a competitor.

And while we have talked in broad terms of nation-wide significance, the means to be adopted would be very simple. An elementary course of ten or twelve lectures worked out by experienced technical men covering the principles of manufacture and distribution might be called course I. A second course covering the art of salesmanship might follow. This course, while primarily for the new business men, might well be taken by all the other employees. In the last analysis every man is a seller of his services. A third course of ten or twelve lectures would embrace a study of the organization and policies of gas companies.

To my mind the gas industry of this country is at the right stage of development to begin this work. A few years ago an attempt to carry out a scheme of education would have failed. The organization and methods of the companies were such that it was difficult to hold men in the business. But the enlightened policies which now govern most companies in regard to industrial betterment, welfare work, wage policies and pension systems have created an attractive force which can now be supplemented by the cohesive force of "a conscience which recognizes obligation," developed through the company's educational efforts.

## Certified Public Accountants in New York

*The New York Law Journal* publishes the following report of the magistrate's finding in a case brought by the people of the state of New York against certain public accountants for alleged breach of sections 80, 81 and 82 of article 8 of the general business law. The salient points of the judgment are condensed in the first four paragraphs.

A person using the letters "C.P.A." signifying "certified public accountant," after his name, unless he has complied with the provisions of sections 80 and 81 of the general business law, is guilty of the offense prescribed by section 82 of said law.

A person is not entitled to use the letters "C.P.A." in connection with his business in this state because he is a certified public accountant duly registered as such in another state.

A certified public accountant in the state of New York may not legally, in conjunction with others, whether certified public accountants or not, form a corporation and act as a company conducting his and their business.

Although a firm name is used by public accountants and one of its members is a certified public accountant, the letters "C.P.A." may be used only with his individual name.

**McAdoo, Ch. Magistrate.**—This case comes before the court on a summons issued at the instance of persons desiring to enforce the provisions of article 8, sections 80, 81 and 82, of the general business law (*Consolidated Laws of the State of New York*, 1909, page 1193), so far as the same relates to public accountants using the letters C.P.A. or the words certified public accountant after their names without being duly authorized to do so by the persons specified in said act.

"Sec. 80. Certified public accountants: Any citizen of the United States, or person who has duly declared his intention of becoming such citizen, residing or having a place for the regular transaction of business in the state, being over the age of twenty-one years and of good moral character, and who shall have received from the regents of the university a certificate of his qualifications to practise as a public expert accountant as hereinafter provided, shall be styled and known as a certified public accountant; and no other person shall assume such title, or use the abbreviations C.P.A., or any other words, letters or figures to indicate that the person using the same is such certified public accountant.

"Sec. 81. Regents to make rules: The regents of the university shall make rules for the examination of persons applying for certificates under this article, and may appoint a board of three examiners for the purpose,

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which board shall be composed of certified public accountants. The regents shall charge for examination and certificate such fee as may be necessary to meet the actual expenses of such examinations, and they shall report annually their receipts and expenses under the provisions of this article to the state comptroller and pay the balance of receipts over expenditures to the state treasurer. The regents may revoke any such certificate for sufficient cause after written notice to the holder thereof and a hearing thereon.

"Sec. 82. Misdemeanor: Any violation of this article shall be a misdemeanor."

Briefs have been filed with me by counsel for various defendants who would be affected by this law, in which the main contention is that it is unreasonable and violative of the state and federal constitutions in that it seeks to monopolize the right to the title C.P.A. in certain persons to the exclusion of others. I do not believe it is within the province of a magistrate to pass upon the large question here presented, but I am free to say in passing that the cases cited, being those with regard to insurance agents, undertakers and plumbers, do not appear to me to be analogous to the case at bar. Those laws excluded all persons from acting as fire insurance agents, plumbers, embalmers or undertakers unless they complied with certain provisions of statutory enactment. The general business law, as applied to public accountants, does not do so. It does not prevent any one from acting as a public accountant. The legislature has recognized an existing fact, to wit, that to be a public accountant requires specialized learning, training and aptitude for a work of great importance to the general public. The expert public accountant is generally recognized as a professional man, and as such his services are called into requisition not only by individuals, companies and corporations, but by governments—local, state and national. Great and important results depend upon his ability, skill and integrity. Recognizing these facts, the state of New York has standardized the degree of efficiency and other requirements which it considers necessary to allow a man to put the letters after his name, C.P.A., meaning certified public accountant. This term "certified public accountant" under this law means that the person so using this designation has complied with the standard requirements of the state authorities, that is, that he has been tested and has been found to come up to the standard adopted by the state, and that he can so hold himself out to the public. The law simply says to the citizen who requires the services of a public accountant that the person writing the letters C.P.A. after his name has been found by the state authorities to meet with certain requirements in examination tests which show him to be a fit person to do the work required of men in his calling. It does not, however, give him a monopoly of the business. Any citizen is free to employ either a public accountant or a certified public accountant. With that choice the state does not concern itself in any way. There is, therefore, no such monopoly as is created for other professions, such as law and medicine, where no one can practise either profession unless he has met the requirements of the state and has been duly licensed to

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engage in such profession. The letters C.P.A. in connection with the profession or business of a public accountant is a sort of sterling mark by which the state says that the particular person using this designation is competent according to its standards to perform the work which he solicits from the public. Under this law any citizen of the United States or any one who has declared his intention of becoming a citizen, residing or having a place for the regular transaction of business in this state, being over the age of 21 years and of good moral character, has the right to make application and submit himself to the tests given by the regents of the university of this state.

I see, therefore, no reason to depart from the plain requirements of the statute, and I find that no one has the right to use the letters C.P.A., signifying "certified public accountant," after his name unless he has complied with the provisions of this law and has been so certified by the regents of the university of the state of New York.

In some of the other cases before me the question is raised whether or not a certified public accountant, duly registered as such in another state, can so act in the state of New York and use the letters C.P.A. in connection with his business. I think that to do so would be plainly evasive of the law of this state and would tend to make it of no effect. If the legislature had intended to grant this right or courtesy to certified public accountants of other states it would have said so. This is strikingly shown in the motor vehicle law, chapter 374 of the laws of 1910, as amended by chapter 491 of the laws of 1911, subdivision 4, section 289, which says:

*"No person shall operate or drive a motor vehicle as a chauffeur upon a public highway of this state after the first day of August, nineteen hundred and ten, unless such person shall have complied in all respects with the requirements of this section; provided, however, that a non-resident chauffeur, who has registered under provisions of law of the foreign country, state, territory or federal district of his residence substantially equivalent to the provisions of this section, shall be exempt from license under this section; and provided, further, he shall wear the badge assigned to him in the foreign country, state, territory or federal district of his residence in the manner provided in this section."*

If the legislature had intended to do so it would have been an easy matter to have provided, as in the motor vehicle law above cited, that certified public accountants of other states having a law substantially equivalent to that of this state in regard to this subject should be allowed to hold themselves forth as certified public accountants in this state.

The question is also raised in another case at bar as to whether or not a certified public accountant in the state of New York, in conjunction with others, whether certified public accountants or not, can form a corporation and act as a company conducting his and their business. If this could be done it would be such an evasion of the law as practically to nullify it by allowing one man to extend the privilege given to him by the state in part to others who had not complied with the provisions of the law or the requirements necessary to authorize them to designate

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themselves as certified public accountants. The analogy suggested between them and law firms is not apparent. All the members of the firm in that case are duly admitted members of the bar, who have complied with the requirements of the laws of the state in order to be able to practise their profession. A firm name could be used as public accountants, and if one of the members is a certified public accountant that fact could be stated by having the letters C.P.A. put after his individual name. The exclusive title the state confers upon those persons who have submitted themselves to the requirements of the law and passed the necessary examinations of the university of the state is "certified," which means that the state "certifies" through constituted authorities that the persons using these titles are competent according to state standards. The state says in effect that it certifies that the individual in question, being properly eligible, has submitted himself to certain standard requirements and tests of examination and has proven himself to be fit to exercise the function of a public accountant. How can he delegate the right that the state has conferred upon him to others in a partnership by having one, two or ten partners or a corporation holding themselves or itself out as "certified" public accountants? If the law is not obviously unreasonable and unconstitutional in being unreasonable, then any attempt to permit people from other states to use the designation "certified public accountant" or to confer this general term upon a corporation or partnership because one individual in it has that right, would make the law of no effect. If the legislature acted within its constitutional rights in passing this law, it is not for a magistrate to say that it is not reasonable from his individual point of view, or that of others who are interested, or that he has better judgment than the representatives of the people in legislature assembled, as to what is good public or business policy regarding matters within their control. Magistrates do not make laws; that belongs to the legislature. Nor do they have the right to question the wisdom of the legislature or write words into laws that are not there originally. The legislature is accountable to the people for the exercise of its great powers. It can only be restrained by the courts when it violates its constitutional limitations.

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## EDITORIAL

### Certified Public Accountants in New York

Elsewhere in this issue we reprint from *The New York Law Journal* a decision by Chief Magistrate McAdoo, which will have an important bearing upon the use of the title "certified public accountant" in the state of New York. Whether or not the decision so rendered will be accepted without reference to a higher authority it nevertheless remains a fact that the rendering of a decision in this important matter is a distinct step forward.

For many years—in fact almost since the original passage of certified public accountant legislation—it has been a moot point whether or not the title authorized by the act could be restricted to those persons holding the degree under authority of the state in which they practise. There have been many differences of opinion. Some authorities have held that the possession of a certified public accountant degree from any state in the union entitled the holder to the use of the abbreviation C.P.A. Others have maintained that following the abbreviation there should be in parentheses the name of the state granting the degree. Still others—though fortunately few in number—have held that a firm in which one member was a certified public accountant was entitled to affix the initials C.P.A. to its corporate name.

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With all this misunderstanding and difference of opinion the matter has never been brought to bar until recently, and everyone concerned will probably be gratified to receive some authoritative pronouncement on the matter.

There has existed for some time in New York, particularly in the city of New York, an anomalous state of affairs in that fully fifty per cent. of the accounting work has been done by certified public accountants whose degrees were conferred by other states, or by chartered accountants whose qualifications were conferred in Great Britain. Everyone has recognized that something should be done to make the New York degree of more value than has heretofore been possible and several of the leading accountants have felt that by the enactment of a reciprocity clause such as is embodied in the laws of most of the states the present paradoxical position could be altered. But for one reason or another neither the legislature nor the board of regents has ever seen fit to introduce the operation of reciprocity and the consequence has been that no one could obtain legal recognition of his right to practise as a certified public accountant in New York unless he were entitled to come in under the waiver clause or by virtue of the regency examination.

THE JOURNAL OF ACCOUNTANCY holds no brief either for or against any of the parties in this dispute, but it heartily welcomes a decision by the chief magistrate of the city which may be considered as bringing nearer a final settlement of a most vexed question. It is understood that the cases which have been tried have been in the nature of tests and presumably there will be appeal from the decision of the magistrate. Possibly the higher courts will revoke the finding of Mr. McAdoo; but whatever be the issue it is cause for much gratification that what has long been a source of bitterness is at last in a fair way to final adjudication.

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## A Federal Income Tax

It is confidently predicted that before next summer a sufficient number of states will have approved the proposed amendment of the federal constitution to enable an income tax bill to be enacted by the congress and upheld by the courts. At the present time

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the necessary number of states lacks only two and there seems no reason to doubt that two states will express their opinion in favor of the amendment within the very near future.

The Democratic party, which will control the executive and legislative branches of government after March 4th, has given unequivocal promise of its approval of the principle of a tax upon incomes; and it may be said without fear of contradiction that taking the country as a whole, a great majority of both parties is decidedly friendly to the theory of income taxation. The man of smaller resources favors this method of taxation because he knows that the man of larger resources is paying more than he; and that portion of the electorate which will be most heavily affected by an income tax is in the minority and therefore its voice will be comparatively futile in opposition.

Taking all these factors into consideration it is permissible to expect the early enactment of an income tax and the question therefore arises: Will the law to be enacted be workable or will it follow the line of other excise legislation which has gone before?

With the record of tariff legislation before one it is pardonable to regard with a certain amount of skepticism the assurance that in the case of the income tax bill there will be careful avoidance of the errors which have been perpetrated in the past. One might point for example to the corporation tax law and refer to the unwillingness of the government to listen to advice before the enactment of that law, with the result that when it was enacted it was found unworkable. Or reference might be made to various other points in federal and state taxes which have rested heavily on the shoulders of the taxpayer without bringing proportionate benefit to the taxing power.

But in spite of the apparent justification for skepticism we feel confident that some of the errors at any rate which have characterized earlier legislation will be avoided in the case of the income tax. The experience gained in the case of the income tax law of 1894 will be of service, and it is sincerely to be hoped that the numerous absurd provisions of that law will be carefully considered and avoided in the drafting of the forthcoming income tax bill. The experience gained in a score of other similar instances will also be of enormous advantage. Further-

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more the government and congress have at their disposal the history of income tax legislation in all the other countries of the world which have adopted or have attempted to adopt this kind of public levy.

Naturally the public accountant who will be called upon to prepare the statements of large numbers of the taxpayers under an income tax law will feel a vital interest in the terms of the law and provisions for collection; and it is a pleasure to be able to state that the advice of public accountants will be asked and given before the expected income tax bill is presented to either house of congress.

The accountants will steadfastly oppose any proposition for uniformity of fiscal periods. They did oppose such a proposition in the case of the corporation tax but were laughed out of court and the law was passed in opposition to expert advice, with the result that before it could be administered the advice which had been ignored was recognized in the treasury rules. The present patch-work of regulations in regard to corporation tax collection was devised to meet an impossible situation created by law and against which the public accountants had warned the government before the law was enacted. In the case of the income tax this error will be avoided if we may believe the assurances of some of the leading legislators who will have in hand the preparation of the income tax bill.

Other points of interest to accountants will be brought before the attention of members of the house of representatives, and THE JOURNAL OF ACCOUNTANCY would suggest to its readers that they bring to the attention of the officers of the American Association and to the attention of their congressmen and senators any points which occur to them as desirable or otherwise before the income tax proposal becomes a fact.

The most satisfactorily administered income tax in the world is that of Great Britain and in framing similar laws here legislators will follow to a great extent the course of British law-makers.

One of the most important features of the British tax and one that will certainly be adopted here is the collection of the tax at its source. That is to say, companies paying dividends or interest on bonds or otherwise returning revenue upon investment will be called upon to make payment of the tax upon

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such revenue and the bondholder or stockholder will receive his income "tax-paid." This method of levying upon investments has been found to be the most satisfactory one wherever it has been applied.

It is the intention that the forthcoming bill shall embody the idea of a graduated tax, very much on the lines followed in Great Britain. There will be no double taxation, but in making returns individuals, firms or corporations will report their revenue outside that which is already taxed at its source.

These are some of the principal features of the bill which will be prepared during the winter months and presented as early as possible after the necessary authorization by the states. There has never been enacted any legislation of more vital interest to the public accountant and it is gratifying to know that those members of congress who are most intimately associated with the preparation of the bill are inclined to listen to expert suggestions. Therefore we earnestly repeat our adjuration to accountants throughout the country to give their careful consideration to this question of income taxation and make known their ideas so that the law when enacted may be found most easily workable and may bear least heavily upon the shoulders of the taxpayer and accountant.

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### Canadian Bank Audits

The Minister of Finance of the Dominion of Canada has introduced in parliament a revision of the bank act of the Dominion which contains several important and novel features. Bank legislation in Canada has a pleasant record of progressiveness and elasticity to meet the changing needs of changing times; and it was to be expected that when the time for a revision of the bank act came round the draft bill would present a considerable number of alterations.

The most important change recommended in the new bill has to do with the inspection of banks. A few years ago it would have been considered visionary to suggest that it be made compulsory for bank audits to be conducted by impartial public accountants; but so rapidly has the recognition of the accounting profession spread that we now find the minister of finance of a great country proposing exactly what would have

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been considered impracticable if not unwise a few years ago. Furthermore the bill, being a government measure, and the government being well supported by legislative majority, will almost certainly become a law.

In brief the bill provides that the shareholders of a bank may appoint an auditor whose certification may be accepted by the government, and that failing such appointment the government itself may designate an independent auditor. In other words, the government instead of maintaining a corps of examiners will recognize the reports of independent accountants. It may be considered somewhat doubtful whether or not the plan of government appointment will be satisfactory but certainly it will make the auditor entirely independent of either bank or shareholder and to that extent will be desirable.

It is well known that many banks which have failed within recent years would never have been allowed to reach the point of bankruptcy if efficient and trustworthy audits of their accounts and condition had been made in time. The government of Canada is determined that everything possible shall be done to prevent such lamentable and usually preventable occurrences as failures of banking institutions.

In view of the great importance of the measure now before the parliament of Canada we publish herewith the following extract from the bank bill dealing with shareholders' audit and auditor's report to minister, and would draw particular attention of those of our readers who are connected with banks to the great emphasis laid upon the necessity of wholly independent investigations.

Sections 56 and 56a follow:

**SHAREHOLDERS' AUDIT**

Section 56: The shareholders shall at each annual general meeting, appoint an auditor or auditors to hold office until the next annual general meeting.

2. If an appointment of auditors is not made at an annual general meeting, the minister shall, on the written application of a shareholder, appoint an auditor or auditors of the bank to hold office until the next annual general meeting, and the governor in council shall fix the remuneration to be paid by the bank for the services of the auditor or auditors so appointed.

3. A director or officer of the bank shall not be capable of being appointed auditor of the bank.

4. A person, other than a retiring auditor, shall not be capable of being appointed auditor at an annual general meeting unless written notice of an intention to nominate that person to the office of auditor

## *Editorial*

has been given by a shareholder to the bank at its chief office, not less than twenty-one days before the annual general meeting, and the bank shall deliver a copy of any such notice to the retiring auditor, if any, and shall give notice of the names of the persons eligible for nomination at said meeting, and by whom such persons are respectively intended to be nominated, to every shareholder of the bank by mailing the notice in the postoffice, post paid, to the last known postoffice address of the shareholder as shown by the records of the bank at least fourteen days prior to the annual general meeting.

5. If any casual vacancy occurs in the office of the auditor, the surviving or continuing auditor or auditors, if any, may act, but if there is no surviving or continuing auditor, and such vacancy has occurred more than three months before the annual general meeting, the directors shall, as hereafter in this section provided, call a special general meeting of the shareholders for the purpose of filling the vacancy.

6. Before calling such special general meeting, the directors shall as soon as may be after the vacancy occurs, give public notice by advertisement in six consecutive issues of one or more daily newspapers where the chief office of the bank is situate, and if no daily newspaper is published in that place, then by advertisement in two consecutive issues of a newspaper published weekly in that place, of the vacancy in the office of auditor, and that the vacancy will be filled in the manner provided by this act.

7. A person shall not be capable of being appointed auditor to fill such vacancy unless notice of an intention to nominate that person to the office of auditor has been given by a shareholder to the bank at its chief office not less than ten days after the last publication of the notice called for by the next preceding sub-section.

8. The directors shall, as soon as may be after the expiry of the ten days mentioned in the next preceding sub-section, call a special general meeting of the shareholders for the purpose of filling the vacancy, and notice of such meeting specifying the object, and stating the names of persons eligible for nomination, and by whom such persons are respectively intended to be nominated, shall be given to every shareholder of the bank by mailing the notice in the postoffice post paid, to the last known postoffice address of the shareholder as shown by the records of the bank, at least fourteen days prior to the date fixed for the meeting.

9. If the vacancy contemplated by sub-section 5 of this section is not filled in the manner provided, or if a casual vacancy occurs in the office of auditor less than three months before the annual general meeting, the minister in the former case shall, and in the latter case may, on the written application of a shareholder, appoint an auditor or auditors to hold office until the next annual general meeting, and the governor in council shall fix the remuneration to be paid by the bank for the services of the auditor or auditors so appointed.

10. The remuneration of auditors appointed by the shareholders shall be fixed by the shareholders at the time of their appointment.

11. Every auditor of a bank shall have a right of access to the books and accounts, cash, securities, documents and vouchers of the bank, and shall be entitled to require from the directors and officers of the bank such information and explanation as may be necessary for the performance of the duty of the auditors.

12. If the bank has branches or agencies it shall be sufficient for all the purposes of this section if the auditors are allowed access to the returns, reports and statements and to such copies of extracts from the books and accounts of any such branch or agency as have been transmitted to the chief office, but the auditors may in their discretion visit any branch or agency for the purpose of examining the books and accounts, cash, securities, documents and vouchers at the branch or agency.

13. It shall be the duty of the auditors once at least during their term

## *The Journal of Accountancy*

of office, in addition to such checking and verification as may be necessary for their report upon the statement submitted to the shareholders under section 54 of this act, to check the cash and verify the securities of the bank at the chief office of the bank against the entries in regard thereto in the books of the bank, and, should they deem it advisable, to check and verify in the same manner the cash and securities at any branch or agency.

14. The auditors shall make a report to the shareholders on the accounts examined by them, on the checking of cash and verification of securities referred to in the next preceding sub-section, and on the statement of the affairs of the bank submitted by the directors to the shareholders under section 54 of this act during their tenure of office, and the report shall state:

- (a) whether or not they have obtained all the information and explanation they have required;
- (b) whether their checking of cash and verification of securities required by sub-section 13 of this section agreed with the entries in the books of the bank with regard thereto; and,
- (c) whether in their opinion, the statement referred to in the report is properly drawn up so as to exhibit a true and correct view of the state of the bank's affairs according to the best of their information and the explanations given to them, and as shown by the books of the bank.

15. The auditors' report shall be attached to the statement submitted by the directors to the shareholders under section 54 of this act, and the report shall be read before the shareholders in the annual general meeting.

16. At or after such meeting any shareholder shall be entitled on application to be furnished by the directors with a copy of such statement and report, and a copy of the report shall be forwarded to the minister.

17. Any further statements of the affairs of the bank submitted by the directors to the shareholders under section 55 of this act shall be subject to audit and report, and the report of the auditors thereon shall state:

- (a) whether or not they have obtained the information and explanation they have required.
- (b) whether, in their opinion, such further statement is properly drawn up so as to exhibit a true and correct view of the affairs of the bank, in so far as the by-law requires a statement thereof, according to the best of their information and the explanations given to them, and as shown by the books of the bank.

18. The report shall be attached to the further statement referred to in the next preceding sub-section, and shall be read before the shareholders of the meeting to which such further statement is submitted, and a copy of the statement and report shall be sent by the directors at and after the meeting to any shareholder applying therefor.

### AUDITOR'S REPORT TO MINISTER

Section 56-A. The minister may direct and require any auditor appointed under the next preceding section of this act to examine and inquire specially into any of the affairs or business of the bank, and such auditor shall, at the conclusion of his examination and enquiry, report fully to the minister the results thereof.

2. For the purposes of this section the auditor shall have all the rights and powers given to an auditor under the next preceding section aforesaid.

3. Upon the performance of the duties imposed by this section the auditor shall be paid as remuneration, out of the consolidated revenue fund, such sum as the governor in council may direct.

## **Department of Practical Accounting**

**CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.**

### **PROBLEM No. 13 (DEMONSTRATION)**

The Hackett Novelty Company was organized on January 1, 1912, under the laws of the state of New York, with an authorized capital stock of \$500,000 divided into 2,500 shares of preferred stock of the par value of \$100 each and 5,000 shares of common stock of the par value of \$50 each.

At the first meeting of the directors a proposition was received from Jones and Hackett, a copartnership trading under said name, whereby it was proposed to transfer the business property and goodwill of the copartnership, except cash, to the corporation, for and in consideration of the sum of \$400,000 to be paid in the capital stock of the corporation, \$250,000 in preferred stock and \$150,000 in common stock, the corporation to assume all the debts in connection with said business. The proposition was accepted by the directors and the value of the business acquired fixed by them at \$400,000.

From the schedules of assets and liabilities the following accounts were opened by the corporation: land and buildings, \$100,000; equipment, \$25,000; motor truck, \$6,000; furniture and fixtures, \$8,000; investments, \$50,000; materials and supplies, \$15,963.21; goods in process, \$32,813.97; finished goods, \$25,195.64; accounts receivable, \$47,972.13; notes receivable and interest, \$10,125; insurance unexpired, \$475; bond and mortgage payable and interest, \$30,450; taxes accrued, \$780; salaries and wages accrued, \$3,265; accounts payable, \$49,607.52; notes payable and interest, \$20,225.72.

Of the common stock remaining after the issue of that to Jones and Hackett, 1,200 shares were sold to various persons for cash, out of which \$1,000 was paid to an attorney for organization taxes, filing fees, and expenses.

From the above prepare:

- (a) Pro-forma journal entry opening the books, followed by journal entries expressing the subsequent transactions.

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- (b) General balance sheet of the corporation after the entries have been made.
- (c) Skeleton ledger accounts showing the closing of the firm's books.

Note: According to the balance sheet of the firm on December 31, 1911, the assets were \$354,328.24; the liabilities, \$104,328.24; capital, A. Jones, \$150,000, B. Hackett, \$100,000. The partners divided profits and losses in proportion to investment.

SOLUTION TO PROBLEM NO. 13

The method of treating the capital stock in this solution differs from that in problem No. 11 in that no cognizance, in so far as the money value is concerned, is taken of the capital stock until same is issued. A memorandum or pro-forma entry is made to record the organization of the company and to give the details concerning the amount, number of shares and par value of the capital stock authorized. The first entry affecting the capital stock account on the general ledger is made in connection with the purchase of the business property and goodwill of the copartnership of Jones & Hackett. Subsequent entries are made in the capital stock account in connection with the sale of 1,200 shares of the common stock for cash. The capital stock accounts, namely, preferred and common, show only the capital stock outstanding. The capital stock authorized is not shown in any way on the general books. The disadvantages of the pro-forma method were discussed in problem No. 11.

In connection with the purchase of the business property and goodwill of Jones & Hackett, an account called "Plant and Sundry Assets" is charged with the amount of the purchase price agreed upon. Jones & Hackett as vendors are credited with the amount. It will be noted in the journal entry covering this transaction that the directors have fixed the value of the business acquired at \$400,000. This is in order that the stock issued for said property may be fully paid and not liable to any further call. In New York state the judgment of the directors, in the absence of fraud in the transaction, is conclusive as to the value of the property purchased. The law further states, "In all statements and reports of the corporation, by law required to be published or filed, this stock shall not be stated or reported as

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being issued for cash paid \* \* \* but shall be reported as issued for property purchased."

For the purpose of getting the assets and liabilities on the books in detail, it becomes necessary to distribute the plant and sundry assets account. From the schedules of assets and liabilities acquired and taken over it will be seen that the assets amount to \$321,544.95 while the liabilities amount to \$104,328.24. Thus the value of the net assets taken over is found to be \$217,216.71. For these the corporation apparently paid \$400,000. The difference between the net assets and this amount, namely, \$182,783.29 must be attributed to goodwill, and the goodwill account is therefore set up in this amount. It is not the intention of the author either to approve or disapprove of this procedure nor to discuss the question of whether or not the goodwill is worth the amount at which it is shown. The purpose is rather to illustrate one of the various procedures resorted to in the treatment of goodwill.

The remaining entries and statements required by the problem will presumably need no discussion with the exception of the skeleton ledger accounts showing the closing of the firm's books after the sale had taken place and settlement had been made by the corporation. Comparing the assets taken over by the corporation with the assets stated as having appeared on the balance sheet of the firm on December 31, 1911, a discrepancy will be noted while the liabilities agree. In this connection attention is invited to the fact that the corporation purchased the property and goodwill of the copartnership except cash. It would thus seem logical to attribute the difference to the cash which was not transferred. This might give rise to the question concerning the distribution of the assets as to whether or not the cash should not first be taken out and distributed between the partners. This of course might be done but it would seem to be unnecessary since if it were done, the cash would be distributed in the proportions of investment and nothing would be gained by making a separate transaction of it since profits and losses as well as net assets resulting in this particular case were divided between the partners in accordance with their respective investments.

January 1, 1912.

To record the organization of The Hackett Novelty Company, incorporated under the laws of the state of New York on January 1, 1912 with an

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authorized capital stock of \$500,000 divided into 2,500 shares of preferred of the par value of \$100 each (\$250,000) and 5,000 shares of common of the par value of \$50 each (\$250,000), this entry is made.

Plant and sundry assets .....	\$400,000.00
To Jones & Hackett, vendors .....	\$400,000.00

For the business property and goodwill of Jones and Hackett, a copartnership, purchased from said parties for the sum of \$400,000, in accordance with proposal and acceptance of January 1, 1912, which sum was fixed by the directors of The Hackett Novelty Company as the value of said property and goodwill, payment to be made in capital stock of The Hackett Novelty Company as follows.

Preferred stock 2,500 shares.	\$250,000.00
Common stock 3,000 "	150,000.00
<hr/>	

\$400,000.00

Jones & Hackett, vendors .....	400,000.00
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To Preferred capital stock outstanding ....	250,000.00
Common capital stock outstanding ....	150,000.00

To record the settlement with Jones & Hackett, vendors, in accordance with the terms of contract above set forth.

Land and buildings .....	100,000.00
Equipment .....	25,000.00
Motor truck .....	6,000.00
Furniture and fixtures .....	8,000.00
Investments .....	50,000.00
Materials and supplies .....	15,963.21
Goods in process .....	32,813.97
Finished goods .....	25,195.64
Accounts receivable .....	47,972.13
Notes receivable and interest .....	10,125.00
Insurance unexpired .....	475.00
Goodwill .....	182,783.29
To Bond and mortgage payable and interest .....	30,450.00
Taxes accrued .....	780.00
Salaries and wages accrued .....	3,265.00
Accounts payable .....	49,607.52
Notes payable and interest .....	20,225.72
Plant and sundry assets .....	400,000.00

To distribute the plant and sundry assets account.

Cash .....	60,000.00
To Common capital stock outstanding .....	60,000.00

For 1,200 shares of common stock sold at par.

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Organization expense .....	1,000.00
To Cash .....	1,000.00

Payment to attorney for incorporation tax,  
filing fees and sundry expenses incident to  
organization.

**THE HACKETT NOVELTY CO.**

**GENERAL BALANCE SHEET—JANUARY 1, 1912**

<i>Assets</i>	<i>Liabilities and Capital</i>
Land and buildings ..... \$100,000.00	
Equipment ..... 25,000.00	Capital stock outstanding: Preferred ..... \$250,000.00
Motor trucks ..... 6,000.00	Common ..... 210,000.00
Furniture and fixtures.. 8,000.00	Total capital stock outstanding ..... \$460,000.00
Investments ..... 50,000.00	Bond and mortgage pay- able and interest ..... 30,450.00
Goodwill ..... 182,783.29	Current Liabilities: Taxes accrued ..... \$ 780.00
Working and trading as- sets: Materials and supplies \$ 15,963.21	Salaries and wages ac- crued ..... 3,265.00
Goods in process ..... 32,813.97	Accounts payable ..... 49,607.52
Finished goods ..... 25,195.64	Notes payable and in- terest ..... 20,225.72
Total working and trading assets ..... \$ 73,972.82	Total current liabil- ities ..... \$ 73,878.24
Current assets: Cash ..... \$ 59,000.00	
Accounts receivable .. 47,972.13	
Notes receivable and interest ..... 10,125.00	
Total current assets.\$117,097.13	
Deferred charges to ex- pense: Insurance unexpired ..\$ 475.00	
Organization expense.. 1,000.00	
Total deferred charges to expense.\$ 1,475.00	
Total assets ..... \$564,328.24	Total liabilities and capital ..... \$564,328.24

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SKELETON LEDGER ACCOUNTS SHOWING THE CLOSING OF THE FIRM'S BOOKS,  
AFTER THE SALE

<i>Assets</i>	<i>Liabilities</i>
\$354,328.24   P. & L. ....	P. & L. .... \$104,328.24   \$104,328.24
<i>The Hackett Novelty Company</i>	
Sale .. \$400,000.00   Securities \$400,000.00	H.N.Co. \$400,000   Jones.. \$240,000.00 Hackett 160,000.00
<i>PROFIT AND LOSS</i>	
Assets ..... \$354,328.24	Liabilities ..... \$104,328.24
Jones ..... 90,000.00	H.N.Co. ..... 400,000.00
Hackett ..... 60,000.00	
<u>\$504,328.24</u>	<u>\$504,328.24</u>
<i>A. Jones</i>	
Secur- ties \$240,000.00	Bal. \$150,000.00 P&L 90,000.00
<u>\$240,000.00</u>	<u>\$240,000.00</u>
<i>B. Hackett</i>	
Secur- ties \$160,000.00	Bal. \$100,000.00 P&L 60,000.00
<u>\$160,000.00</u>	<u>\$160,000.00</u>

PROBLEM No. 13-A (PRACTICE)

The Classical Book Company, a corporation organized and existing under the laws of the state of New York, having filed its charter on July 1, 1912, which charter authorized preferred capital stock, 1,250 shares, \$100 each, and common capital stock, 2,500 shares, \$50 each, receives a proposition from Benedict and Selleck whereby said parties agree to transfer all the property, business, and goodwill, except cash of the firm of Benedict and Selleck in consideration of all the capital stock of The Classical Book Company, said corporation to assume all debts of the firm. The proposition was accepted and the value of the property acquired fixed by the directors at \$250,000.

Benedict advanced \$10,000 in cash, taking the corporation's note. The assets and liabilities acquired were valued in detail as follows: land and buildings, \$75,000; machinery, tools, etc., \$18,000; horses, wagons and harness, \$2,500; furniture and fixtures, \$5,000; Atlantic Coast Line 4's, \$15,000; paper stock and supplies, \$20,782.13; work in process, \$15,951.46; books, \$35,-

*Department of Practical Accounting*

864.17; accounts receivable, \$13,326.19; notes receivable and interest, \$5,012.50; advertising unused, \$325; bond and mortgage payable and interest, \$15,125; taxes accrued, \$250; salaries and wages accrued, \$1,875; accounts payable, \$43,046.13; notes payable and interest, \$30,247.79.

The balance sheet of Benedict and Selleck on June 30, 1912, showed assets, \$215,543.92; liabilities, \$90,543.92; capital, A. Benedict, \$100,000; B. Selleck, \$25,000. Profits and losses were distributed in proportion to investments.

Prepare:

- (a) Pro-forma journal entry opening the books of the corporation, followed by journal entries to record the subsequent transactions.
- (b) General balance sheet of the corporation after the entries have been made.
- (c) Skeleton ledger accounts showing the closing of the firm's books.

## Correspondence

### A Question of Partners' Drawings and Dividends

*Editor, The Journal of Accountancy:*

Sir: As a constant reader of your valuable JOURNAL permit me to submit for discussion a situation which has recently arisen in my practice, and the equitable disposition of which appears to be connected with some difficulties.

The facts of the case under consideration are these:

About two years since the writer was engaged to make an audit of the affairs of a manufacturing concern, the results of which showed a small *bona fide* surplus, after making provisions for all necessary reserves for depreciation, etc. Soon after rendering this report the directors, all of whom are stockholders, held a meeting, and declared a dividend almost in full of the then existing surplus balance. This declaration appears to be duly recorded in the minute book, but no entry whatsoever has been made on the general books of the company in regard to this. There are only three stockholders, all equally interested, and all actively engaged in the business. They credit their individual accounts monthly with a fixed salary of \$100.00 as an expense to the business for their services, and charge the same accounts with all their drawings.

Recently the writer was called in again by this concern and found that the accounts had not been closed for the last two years; no inventories had been taken; and the condition of affairs was hopelessly insolvent. After many adjusting entries had been made and all outstanding liabilities were entered, a deficiency took the place of the old surplus.

The three stockholders' accounts appeared to be overdrawn considerably for various amounts in excess of the monthly salary credits. This, it is explained, is caused by the failure of making an entry of the old dividend credit, against which, the stockholders claim, the excess drawings were intended to be charged. The affairs are now financially so bad that the stockholders decide to petition the court for bankruptcy proceedings.

On a balance sheet, where should these overdrafts be shown, if at all? In case the dividend credits are applied, they would not only retire the debit balance, but in two cases leave a credit balance on the accounts. But there is no surplus now to do this, and, if done, it would simply increase the impairment of capital account.

I have obtained an opinion from one of our best lawyers, according to which the drawings not having been charged to a special dividend account, the stockholders should make good their overdrafts and share in the remaining assets after liquidation, if there are any.

Allowing the credits for dividends however, at this time, would it not open the door to many frauds, especially in cases where the exist-

## *Correspondence*

ence of an old surplus might be doubtful with no records to substantiate the same?

It would be easy enough to make entries on a minute book.

Of course we recognize the difference between the overdrawn amounts to be paid in or proportions shared in the final winding up of affairs, which either procedure of accounting would produce.

Yours truly,

Norfolk, Va., Nov. 22, 1912.

J. W. Apitz. C.P.A. (Va.)

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## Waste Sales Accounts

*Editor, The Journal of Accountancy:*

Sir: It would no doubt be of some interest to the profession to have a liberal expression of views through your columns, upon this question:

In the preparation of a cost statement of the cost of yarns manufactured by a cotton mill, how and where should the waste income be shown?

The cotton consumed by the mill is packed at the gin in bales, wrapped in burlap and bound with iron or steel hoops. This burlap and hoops, known as "bagging and ties," are sold by the mill to waste dealers and credited on the books to "waste sales" account.

There are other sorts of waste, such as "strips," "motes," "sweepings," etc., that are sold by the mill and credited to "waste sales" account. The question is: What disposition should be made of the "waste sales" account in the preparation of a statement showing the cost of the yarns manufactured?

As waste is not regarded as a by-product, any more than the shavings from the plane of a carpenter, and as it was a part of the cotton, and purchased in the beginning as cotton, should it be credited to the cost of cotton? If so, then does that method destroy the statistical value of periodical comparative costs of the product? A liberal expression of views is desired by those interested.

Yours truly,

G. G. Scorr.

Charlottesville, N. C., Dec. 14, 1912.

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## The Michigan Association of Certified Public Accountants

At the annual meeting of the Michigan Association of Certified Public Accountants on November 19, the following officers were elected for the ensuing year:

President, Frederic A. Tilton; vice-president, Louis H. Turrell; secretary, W. D. Bonthon; treasurer, George C. Brown; auditor, J. J. Jerome.

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### **The Connecticut Society of Certified Public Accountants**

The annual meeting of the Connecticut Society of Certified Public Accountants was held in New Haven on November 13th and the following officers were elected:

President, Frederick C. Manvel; vice-president, George L. Vannais; secretary, John Starkweather; treasurer, Frederick W. Child; auditor, Charles C. Wilson.

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### **Ohio Society of Certified Public Accountants**

At the quarterly meeting of the Ohio Society of Certified Public Accountants held in Cleveland on December 14th, Mr Carl H. Nau read a paper on *The Place of the Accountant in Modern Industrial Organizations*. Messrs. J. J. McKnight and W. A. Coy reported on the last annual convention of the American Association of Public Accountants.

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### **Georgia Society of Certified Public Accountants**

At a recent meeting of the Georgia State Association of Public Accountants, after due notice, and in accordance with the constitution and by-laws, the name of the organization was changed to *Georgia Society of Certified Public Accountants*.

The constitution and by-laws were so amended so as to make eligible for membership certified public accountants only.

Mr. Charles Neville of Savannah was admitted to fellowship.

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### **California Association of Auditors and Accountants of Public Utilities**

The California Association of Auditors and Accountants of Public Utilities is a recent organization which has undertaken a wide range of work and has already accomplished considerable results.

The organization of this association was the result of a request for assistance by the railroad commission of California. In 1911 three amendments to the state constitution were authorized. These amendments (which taken together constitute what is known as the *Public Utilities Act*) created the railroad commission, which has jurisdiction over all railroads (both steam and electric), express companies, gas, electric, telephone and water companies and other companies of a public nature and is similar to the commissions in many of the eastern states.

One of the powers of the commission is to prepare systems of accounts which it may require companies to follow. Under this power

### *Announcements*

the commission promulgated a classification of gas and electric accounts, but before finally adopting the system it was referred for consideration to the various companies interested. A general meeting was held and the outcome of the proceedings was the formation of a committee which prepared a classification of accounts that was adopted practically in its entirety by the commission.

After the success which had attended this initial effort the committee transformed itself into an association of a permanent character; and at the meeting to be held on March 29th the organization will take definite shape and the questions of regulations, dues, etc., will be settled.

A circular letter explaining the history of the movement is signed by W. B. Bailey, 445 Sutter Street, San Francisco, California, and two other members of the membership committee.

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### **Eastern Commercial Teachers' Association**

The annual convention of the Eastern Commercial Teachers' Association will be held in Atlantic City, March 20, 21, 22, 1913. Among the topics to be discussed are several relating to instruction in accounting.

## Book Department

MODERN ORGANIZATION. BY CHARLES DELANO HINE. *The Engineering Magazine Company, New York, 1912.*

A series of articles which appeared in the *Engineering Magazine* in the first half of 1912 has been collated and published in book form under the title *Modern Organization*. The author of these articles, Charles DeLano Hine, is a firm believer in the personal equation in industry, commerce and all departments of business. Basing his argument to a great extent upon the successful operation of the unit system as applied on the so-called "Harriman lines" he goes step by step through the ideal method of management and operation to what he considers the practical solution of the difficulties which he encounters. Much of Major Hine's discussion will appeal to the practical man as being entirely Utopian, but nevertheless anything which contributes to the vital question of organization is worthy of attention. Although the theories propounded in this book may not be altogether practical they will be found at least worthy of consideration.

Accountants will read with some amazement the chapter devoted to the "fallacies of accounting." The author appears to think that accountants have over-estimated their sphere of influence. The accountant knows that he can render satisfactory results only by being conversant with the details of every branch of activity and he knows that the field of his operations will increase steadily. It seems as though the author of the book before us were a better friend to the technical director, as he calls him, than to the accountant. For example we find: "When he wakes up the technical director has all the advantage. He can learn accounts much more easily than an accountant can acquire technical knowledge."

Men who have spent their lives in acquiring a technical knowledge of accounts which will justify them in speaking with authority will view with some astonishment this bland statement of the facility with which accountancy may be grasped.

In spite of its unwise generalizations and unpractical propositions, however, this little book is of considerable merit and will probably find many readers.

ERRORS IN BALANCING. (Third Edition.) *Gee and Company, London, 1912.*

Messrs. Gee & Company of London have issued the third edition of their little hand-book on *Errors in Balancing* which will probably be found of considerable service by accountants whose work is conducted in terms of pounds, shilling and pence.

HOTEL ACCOUNTS. (Second Edition.) BY LAWRENCE R. DICKSON. *Gee & Company, London, 1912.*

As volume xxxvii of the *Accountants' Library*, Messrs. Gee & Com-

### *Obituary*

pany publish a treatise on *Hotel Accounts* written by the well-known authority, Mr. Lawrence R. Dicksee. It is a handy little volume consisting of about seventy-five pages and is so prepared as to be intelligible to the hotel manager as well as to his bookkeeper. The book is concise and complete and covers the entire range of accounts necessary for every department of hotel management.

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### **Announcements**

**Quail, Parker & Company**, certified public accountants (Minnesota) announce that they have removed their St. Paul office from Endicott Building to 1414 Pioneer Building and also that they have opened an additional branch office at Havana, Cuba, under the management of John B. Phelan.

**Arthur E. Phillips** and **William D. Glendinning** announce that they have entered into partnership and will practise as chartered accountants under the firm name of **Phillips and Glendinning** at 806 Sterling Bank Building, Winnipeg, Manitoba.

**W. R. Mackenzie**, of Portland, Oregon, announces that after January 1, 1913, his son, Charles Arthur Mackenzie (of New York) will be associated with him under the name of **W. R. Mackenzie & Son**, certified public accountants.

**Richardson and Giraud** of Beaumont, Texas, announce the opening of a Houston office, to be temporarily located at No. 323 Chronicle building, in charge of **Mr. Stuart A. Giraud**.

**Price, Waterhouse & Co.** announce that they have established branch offices in the **Bank of Ottawa Building**, Vancouver, and **Union Trust Company Building**, Winnipeg.

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### *Obituary*

We regret to announce the death of **Mr. J. W. Barber**, certified public accountant, a member of the American Association of Public Accountants. Mr. Barber died in the city of San Francisco, on November 26th, 1912.



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Official Organ of the American  
Association of Public Accountants

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## Income Statements for Institutions \*

By WILLIAM MORSE COLE

*Assistant Professor of Accounting in Harvard University*

For institutions which are not primarily profit-making, the common type of income statement is not likely to be quite satisfactory. It is obvious that institutions having several sources of income and compelled to meet several kinds of expense, should show how far any of the kinds of income are adequate to take care of the expense connected with them.

### EARNING AND ENDOWMENT INCOME

In a hospital, for example, the first fact we wish to know is how far the earnings from the service of patients are adequate to pay running expenses. If we show all items connected with the care of patients in a schedule by themselves, which we may call the "schedule of earnings," the resulting surplus or deficit gives us the desired figure. .

We next wish to know how far the income from the endowment of the institution is adequate to make up any deficit in its direct earnings, or how far it will add to the surplus of earnings. So the surplus or deficit of earnings, from the first schedule, should be carried down to the second schedule—which we may call the "schedule of endowment income." Any surplus or deficit remaining after income from endowment has been considered is the net result of the internal affairs of the hospital.

\* From the author's forthcoming work, "Cost Accounting for Institutions."

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### SUBSCRIPTIONS

For most hospitals, two other sources of income remain—annual subscriptions from charitable organizations and individuals, and legacies. It happens that subscriptions are likely to maintain a fairly steady level, and may with some degree of certainty be counted upon by the administrative officers for meeting running expenses. Legacies, on the other hand, are extremely variable, and may run very high in seasons of abnormal death rate among the well-to-do, and may run very low even in extremely prosperous seasons if these seasons happen to be seasons of good health. For this reason it seems desirable to make a distinction between these two kinds of income, and to provide separate schedules for them. If we bring down the surplus or deficit from our second schedule, or "endowment income," into a third schedule, which we may call "normal current income," we have a final surplus or deficit resulting from what may be considered the normal transactions of the period under review.

### LEGACIES AND OTHER FUNDS

This figure, in turn, should be carried into the fourth schedule, which should cover legacies. Here we enter a field which may be either capital or revenue. This schedule will show the final result for the year as affected not only by normal income and expense, but by the two transitory and unreliable elements, current and capital legacies. If any legacies have been received subject to the restriction that they shall be used for capital purposes only, it is hardly feasible to consider them as of the same class with unrestricted legacies, and theoretically they should not go into a schedule which includes current items; but since most persons who are interested to watch contributions to an institution of this sort are not familiar with accounts, and are therefore likely to expect to see even capital legacies placed with the income for the year, it is desirable to place them in this part of the statement—though they should be designated separately. This fourth schedule, since it is not strictly for either income or capital, but combines all kinds of ultimate receipts, should distinguish by separate columns those for current use from those for capital use.

## *Income Statements for Institutions*

### DETAILED SCHEDULES

To these schedules may be appended details for purposes of comparison—one institution with another or one year with another; but any one who has attempted to make comparisons for himself either within an institution or between institutions will recognize the importance of the summary statements, even though details be not shown.

### DETAILED EXAMINATION OF SCHEDULES

Let us now examine these statements in detail. The forms given, on pages 86-89 are for a hospital. Provision is made there for virtually all contingencies. Never could all of them arise at the same time in any institution, but the titles are shown for the sake of completeness. Virtually the same sort of items would appear for any other type of institution, though the titles might be changed in certain cases—as with “state appropriation” substituted for “subscriptions from normal sources.”

### SCHEDULE A—EARNINGS

In Schedule A are shown only those items of earning and of expense which result from the conduct of the institution's prime function—the care of patients. (For a school or college this would be the education of students, and for a club or hotel the entertainment of guests.) Distinction should be made clearly between earnings and income, for the latter term is commonly used to designate not only earnings from the chief business of the enterprise, but also interest and dividends on bonds and stocks held and miscellaneous income from chance profits. Any gain arising from sources not directly related to the year under consideration should appear on neither the earnings' account nor the income account, but on the fourth schedule. Depreciation must be counted as an expense of conducting business, and is therefore chargeable against earnings on this first schedule. In view of the fact that very different policies with regard to the amount of depreciation chargeable in any year prevail in different establishments, however, it is desirable to show depreciation as a separate item; for it would be unfortunate for any institution to have its superintendent judged by the

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total charge for expenses, when that charge included very liberal provision for depreciation, in comparison with the superintendent of another institution in which the provision for depreciation is very scant. For these reasons, on the revenue account depreciation is shown in the accompanying form as a deduction from an initial surplus or deficit, and is therefore excluded from the first figure of expenses. Obviously, if the revenue from the main activity of the institution is in excess of all the expenses, the words "total deficit" on the form which follows will be canceled, and "net surplus" will stand as the title; and if the initial surplus is less than the amount of the depreciation, the final designation of the amount of Schedule A will be "net deficit."

SCHEDULE B—ENDOWMENT INCOME

The purpose of Schedule B is to show not merely the figures for income, but also the rate of return. In view of the fact that some investment may have been made in the progress of the year, and therefore have borne interest for less than a year, one cannot draw exact conclusions with regard to the average rate of return unless one knows how much investment has borne interest for a short period. Schedule B accordingly shows as its first item the investment previously reported and unchanged, and gives in parenthesis the average rate. The income from new and changed investments, which, of course, is for less than a year, is separately shown. From the total of this income from investments must be subtracted any deficit of earnings as shown by Schedule A, if any has occurred; or to these will be added any surplus of earnings. The cancellation of the unnecessary words on the schedule makes the final figure clear.

SCHEDULE C—NORMAL CURRENT INCOME

Schedule C is likely to be most useful if it covers not only all items of gain from earnings and from investments, but also all sums received from outside in the way of gifts or legacies applied to current uses and normal in amount. Since the purpose of Schedule C is to show the ultimate result of the year's work so far as the balance of income and expense is concerned, and since many institutions receive frequent legacies not only

## *Income Statements for Institutions*

available for current expenditure, but even intended by the donors to apply to that use, the result of the year's operations is not fairly shown unless the amount of such gifts and legacies actually utilized for current purpose is shown on the final schedule of normal current income and expenditure. The final figure of Schedule C indicates whether the institution is running behind on all its normal current income, from whatever source, or is accumulating a fund available either for expansion or for increased investment. Institutions, unlike most commercial and manufacturing enterprises, are likely to have funds which may be treated as either capital or current; for they are not primarily engaged in making and distributing profit; and hence they have not the same need of distributing evenly throughout the years any unlabeled items of income and capital. Since expenses need not necessarily be met out of earnings, and since some contributions may be either income or capital, a certain overlapping of what in ordinary business would be deemed either pure income or pure capital is bound to occur. This overlapping should be indicated so that one in reading the accounts, or at least in reading the final published statement, may see both what is the gross increase in the capital of the enterprise, and how much of those receipts which under certain conditions might have been added to capital has been actually absorbed for current use. The balance sheet shows annually the condition of all capital funds; but it cannot show how much property possibly available to add to capital has been absorbed for other purposes. Schedule C, therefore, should show the actual absorption of legacies for current uses. Corporation expenses belong here, for they are normal current items not operation.

### SCHEDULE D—SPECIAL ITEMS

#### (a) *Available Funds*

Schedule D is meant to be a statement of the financial transactions for the year, both capital and income. It begins with the balance brought down from Schedule C. If Schedule C has not produced either a mere cancellation of receipts and expenditures on one hand or a deficit on the other, the surplus of normal current income is, of course, available to increase capital, and therefore it may be held either for current use in the subsequent

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year or as a fund laid aside and destined for capital investment. The schedule below indicates how much surplus of normal current income is destined for each of these two possible uses. The second and third columns of the schedule are intended to separate the current from the capital items; and therefore these amounts, resulting from a division of the surplus of normal current income just indicated, are not only shown, with their total, in the first column, but are extended into the appropriate other columns. As above indicated, legacies and other special contributions may be restricted to investment for capital endowment, they may be available for the purchase of property, or they may be available for current expenses. The sum of these constitutes the amount which it is possible to add to capital; but, if any part of this sum is applied to current expenses, the balance only will be extended into the capital column of the schedule, and the sum deflected to current expense will appear in the current column and will correspond with the sum so named on Schedule C.

Occasionally an institution disposes of some of its property at a profit. This gain is clearly not a gain of income in the ordinary sense, because it does not arise from circumstances of the current year. It should be considered a capital addition, although, of course, unless there were a restriction on the original property, it may be applied to current uses if need arises. Similarly, gains may arise from change of investment. These, when added to the possible capital additions already indicated, show all possible additions to capital for the year. It is likely to happen, however, that some capital items have depreciated, and that, although sums are available for capital increase, it is wise to devote them to making good capital losses. Whenever this has occurred, it is obvious that the increase in property or investment shown by the balance sheet will not be so great as the increase in possible additions to capital shown on Schedule D. To explain any such discrepancy, it is desirable that these sums necessary to make good losses shall be shown directly on Schedule D, and thus indicate the deduction from items of possible addition to capital. It is true likewise, of course, that capital property may have increased because the institution has borrowed to make purchases. If that has occurred, the increase in outstanding debt should appear on Schedule D as

## *Income Statements for Institutions*

a means of showing the total amount of funds to be accounted for. Then any changes on the balance sheet will be explained by reference to Schedule D—unless those balance-sheet changes have arisen from a mere shift of one kind of assets for another, or from a shift of one kind of liability for another.

### SCHEDULE D—SPECIAL ITEMS

#### (b) *Disposition of Funds*

The second half of Schedule D is intended to show how the institution has accounted for the funds which the first half of Schedule D shows it responsible for. If the normal current income (Schedule C) has shown a deficit, obviously a part of the funds available for current use and shown on the upper half of Schedule D will be absorbed in making good this deficit. Any additions to institution property and to institution investment will also absorb certain portions of the increase of funds available for capital use; and if any shrinkages of either property or investment are to be made up from capital funds these will also show. It will be noticed that these sums necessary to make good losses are shown on both halves of Schedule D; since it is desirable to show the details regarding the use made of capital funds available, they must appear on one side of the schedule, and unless they appear also on the other side the schedule will show a discrepancy between the sums to be accounted for and the disposition of such sums. Any sums destined for capital use, but not yet invested, will appear as a balance, in the capital column, as cash with the treasurer. Any sums spent in paying off outstanding debt will appear also in the capital column, for they explain the disposition of capital sums available, and paying debt is the same as making investment. Any sums destined for current use and yet unexpended appear in the current column as increase of current cash with the treasurer.

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STATEMENT OF FINANCIAL TRANSACTIONS FOR THE YEAR

SCHEDULE A—EARNINGS

Expenses, excluding depreciation (Schedule appended, p. —).....	\$245,000
Income from hospital sources (Schedule appended, p. —).....	100,000
Initial [surplus] deficit .....	\$145,000
Depreciation .....	5,000
Total [net surplus] deficit of earnings .....	<u><u>\$150,000</u></u>

SCHEDULE B—ENDOWMENT INCOME

Income from investments previously reported, and unchanged (5.12%)* .....	\$ 95,000
Income from new or changed investments (parts of year only) ..	5,000
Total .....	<u><u>\$100,000</u></u>
[Surplus] Required to make good deficit of earnings (Schedule A) .....	150,000
[Total surplus] Net deficit of endowment income.....	<u><u>\$ 50,000</u></u>

SCHEDULE C—NORMAL CURRENT INCOME

Subscriptions from normal sources (Schedule appended p. —) ..	\$ 80,000
Legacies and special contributions used for current expenses .....	00,000
Total .....	<u><u>\$80,000</u></u>
[Surplus] Required to make good deficit of endowment income (Schedule B) .....	50,000
Balance .....	<u><u>\$ 30,000</u></u>
Corporation Expenses .....	5,000
Net [Total] surplus [deficit] .....	<u><u>\$ 25,000</u></u>

\* This does not include income from any funds of which the income is not available for current use.

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### STATEMENT OF FINANCIAL TRANSACTIONS FOR THE YEAR (*Continued*)

#### SCHEDULE D—SPECIAL ITEMS

##### *Funds to be Accounted for*

Surplus of normal current income (Schedule C) disposed as below:

Added to current funds .....	\$10,000	\$10,000
Destined for capital investment .....	15,000	\$15,000
Total .....	\$25,000	
Endowment income restricted to increase of capital .....	00,000	
Legacies and other special contributions received, as follows:		
Restricted to capital endowment (See schedule, p. —) .....	25,000	
Available for purchase of property (See schedule, p. —) .....	10,000	
Available for current expenses (See schedule, p. —) .....	5,000	
Total bequests possible to add to capital .....	\$40,000	
Less amount used for current expenses .....	00,000	40,000
Gains on sale of institution property .....	00,000	
Gains on sale of investments .....	00,000	
Total extraordinary items possible to add to capital .....	55,000	
Necessary to make good losses of institution property* .....	5,000	
Necessary to make good losses on investments .....	5,000	
Total to make good losses of capital .....	10,000	10,000
Net increase [or decrease] of capital ownership .....	45,000	
Increase of outstanding debt‡ .....	00,000	00,000
Net funds to be accounted for....	\$45,000	\$10,000
	=====	=====

\* Includes extraordinary depreciation, such as loss by fire, or loss on sales of real estate.

† To be added.

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STATEMENT OF FINANCIAL TRANSACTIONS FOR THE  
YEAR (*Continued*)

SCHEDULE D—SPECIAL ITEMS (*Continued*)

*Disposition of Funds to be Accounted for*

Deficit of normal current income (Schedule C) .....	\$00,000
Gross expenditures for institution property .....	\$20,000
Necessary to offset losses, as above ‡ .....	5,000
Net additions to institution property .....	\$15,000
Gross expenditures for investments .....	25,000
Necessary to offset losses, as above ‡ .....	5,000
Net additions to investments.....	20,000
Total capital additions invested... .	35,000
Uninvested capital additions, cash with treasurer    .....	10,000
Total capital additions .....	45,000
Decrease of outstanding debt ‡ .....	00,000
Current cash with treasurer    .....	10,000
Total funds accounted for .....	\$45,000
	10,000
	\$55,000

SUMMARY OF FINANCIAL TRANSACTIONS

A summary of the financial transactions for the year should show the total changes in each group of property, investments, and liability, without indicating the details. In form, it should show a list of sums to be accounted for, and a list of items which serve that accountability. The two must balance, as shown on page 89. The first three items on the first half of the sheet show direct receipts, and therefore must be explained in the second half. The other four items show either consumption of property, through operations, or exchange of property: consumption through operations shows in either a reduced surplus

† Unless these items are shown, a comparison of the balance sheets of two years will imply an apparent disagreement with this schedule, for the balance sheet will show only net additions; and if these items are to appear on one half of this schedule they must appear on the other. Hence the repetition.

‡ To be added.

|| These are not necessarily the treasurer's present cash balances, for he may have had a balance from a previous period, may have received other sums from the collection of debts or sale of property, and may have made disbursements for debt or for the investment of previous balances. These will show on the next statement.

### *Income Statements for Institutions*

of normal current income, or an increased deficit; and exchange of property must show in one of the last six items of the second half of the sheet. In a similar way, any item on the second half of the sheet is explainable by some item or group of items on the first half. So the statement necessarily balances and summarizes the situation for the year.

#### SUMMARY OF FINANCIAL TRANSACTIONS FOR THE YEAR

Surplus of normal current income .....	\$25,000
Legacies and other special contributions .....	40,000
Net additions to outstanding debt .....	
Net shrinkage in total capital in institution property.....	
Net shrinkage in total capital investments .....	
Net shrinkage in uninvested capital funds .....	
Net shrinkage in available current funds * .....	
<i>To be accounted for</i> .....	<u>\$65,000</u>
Deficit in normal current income .....	
Expended in making good losses of capital .....	\$10,000
Net shrinkage in outstanding debt .....	
Net additions to capital in institution property .....	15,000
Net additions to capital investments .....	20,000
Net additions to uninvested capital funds .....	10,000
Net additions to available current funds † .....	10,000
<i>Accountability satisfied</i> .....	<u>65,000</u>

\* This may have a negative origin; that is, it may be due to a larger deficit on the balance sheet than that of a year ago.

† This may have a negative origin; that is, it may be due to a smaller deficit on the balance sheet than that of a year ago.

## Uniform System of Accounting for Second-Class Cities

BY JOHN J. MAGILTON

*Auditor to State Comptroller*

The comptroller of the state of New York, William Sohmer, has prescribed a uniform system of accounts for second-class cities, which went into effect January 1, 1913.

The comptroller does not claim that the system adopted by him is the last word to be written on the subject, and it may be said that it would be difficult indeed to find a person who would be able to accomplish this end; but the greatest claim which he hopes to make for the system is that it is a long step in the right direction. No doubt shortly after its introduction improvements will be recommended and made, and it is admitted that room still exists for some improvements owing to the fact that the system adopted embodies the least number of technicalities and at the same time the smallest form advisable to give all the information desired. It was constructed with the intention not to overload the financial officers of the municipalities—further improvements being left until such time as officers had become accustomed to a change as radical as the new system required.

It may be admitted that more technical systems could be adopted embracing a greater number and plan of accounts, though the installation of any system of this nature would be very likely to defeat itself because its operation would probably require larger and more highly trained staffs of accountants in the various municipal offices, and thus result in greatly increased expense, which might be regarded as a serious objection. It is important that this particular point be kept in view when recommending the adoption and installation of any form of accounts, as, if it appeared that it was meeting with continual opposition from those charged with its successful operation, popular opinion might help largely in making the scheme a failure.

It must be admitted that the accounts of cities operated on the cash basis plan do not embody the latest and soundest accounting principles, nor do the results obtained furnish the public

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with the information to which they are entitled; and most of the large cities of this state are operated under this plan. From the books themselves nothing more than a trial balance can be shown, from which neither the condition of the funds nor a statement of revenues and expenditures can be prepared. When any other information is furnished in an annual report, it is generally picked from the books in a laborious manner and is not readily accessible.

Before adopting the uniform system, the state comptroller invited to Albany the comptroller, treasurer and accountants of each second-class city of the state of New York, for conferences at his office, as he did not feel that any fixed plan of accounts should be prescribed without allowing those responsible for its prosecution to view and discuss the matter fully, and to give their opinions freely as to its merits or demerits, especially its practicability of operation. It was finally agreed by the representatives of the six second-class cities of the state, *viz.*, Albany, Schenectady, Syracuse, Troy, Utica, and Yonkers, to adopt the plan as presented by the comptroller. In order to expedite its adoption at the beginning of the new year, typewritten copies were placed in the hands of the financial officers of these cities while awaiting the printing of the prescribed system.

### DESCRIPTION OF UNIFORM SYSTEM

The system describes the purpose of financial records, gives a general review of the laws of the state of New York concerning the accounts of municipalities, refers to the existing financial systems, and explains the purposes of all the accounts used in the new system.

The most important part of the work is the presentation of the journal entries, ledger accounts, balance sheets and the forms of books and blanks required in addition to those now in use. An entry is made for every transaction likely to occur in a municipality, and brief explanatory remarks are added to each.

The operations taken into consideration among others are the estimated revenues; tax levies and budget appropriations; the building of a sewer where the property holders were to pay for one-half the cost of construction, the balance being paid through the levying of taxes; the paving of a street, financed by street

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paving notes, which are paid off by collection of assessments from owners of property abutting on the street paved; and the construction of a school entirely by bond issue, which bonds are to be paid off later through tax levies. Entries showing operations in the different sinking funds, pension funds, etc., are also shown. The ledgers embrace all of the accounts arising in the journal, and all transactions can be traced thereto and the disposition of the balances ascertained. The balance sheet is shown at the end of each year for three consecutive years, containing the current, capital and trust accounts.

It is a striking feature of the work that journal entries, ledger accounts and balance sheets have been shown for the years 1910, 1911 and 1912; the entries occurring in the years 1911 and 1912 being shown to account for the disposition of transactions arising in the year 1910, as in municipal accounting some transactions must be continued to the second year following that in which they arise; such as the sales of property for unpaid taxes and sewer and paving assessments. When default on the part of the property holder occurs in the year following the levy and when the property is bought in by the city, it is unable to secure its money until the year following the sale.

This scheme of actually doing the work was considered the most convenient method of placing before the financial officers the system of account keeping desired, owing to its simplicity and lucidity.

A list of the subsidiary books required is shown for current, capital and trust fund transactions and their uses described. For all other records necessary to carry into operation the system designed, in addition to those already used in the second-class cities of the state, a form of each is shown and the entries given throughout the different columns of these records, which point out specifically the accounting required as the transaction progresses.

The most radical step in the system is the adoption of orders to be used as far as possible when creating obligations. Persons familiar with municipal accounting will thoroughly appreciate that no great step could be taken for its improvement without giving careful attention and consideration to the adoption of the order scheme, as the great difficulty lies in that appropria-

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tions cannot be properly controlled unless they are charged with commitments against them as they arise.

A great deal has been written on the subject of municipal accounting, including systems bringing into play the scheme of orders, which until put into practice seem to be very simple of operation. One of the difficulties to be encountered in successfully prosecuting a plan of accounting embodying orders, is that all bills rendered against a municipality are not based on orders placed. For instance, payments for interest on bonds, freight, express, payrolls, etc., are made on claims which have not been based upon the placing of orders. This has been kept carefully in mind in devising the system.

It is admitted that the order system is not as simple as the keeping of accounts on a cash basis, but the municipality is well repaid for the extra labor involved, on account of the information derived from its operation and the careful guarding of appropriations.

Should the claim be made that the accounting system has been burdened to any degree by the use of the order system, it must be said that, when seeking to improve the plan of municipal accounting over the cash basis method, unless orders are recorded it is scarcely possible to make any improvement and the accounts had better remain as they are.

Beyond the requirements of the prescribed system, any municipality may keep as many records in addition thereto as it deems advisable; it may also keep any records now in use that will furnish readily any information or the recording of any transactions desired.

Among the perplexing questions confronting a great many fiscal administrators have been those involving educational and water matters, and to the work extracts from the law in the form of briefs have been appended, which will no doubt furnish those responsible for the prosecution of the Sohmer system with a great deal of useful information.

### REMARKS ON THE SYSTEM

Simplicity of operation and installation together with flexibility were the main things kept in view when devising the system, as it was fully realized that to present to the financial

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officers of municipalities a system involving many technicalities would retard its adoption and prosecution. It appears scarcely possible that fewer accounts or funds than those presented in the system could be used to give the information of the finances of a municipality—this being one of the greatest recommendations for simplicity.

Credit has been given to the United States census bureau for reports of statistics on cities; to former Comptroller METZ of the city of New York for his *Manual of Accounting and Business Procedure*; to the Bureau of Municipal Research for *Short Talks on Municipal Accounting and Administration*; to DR. CLEVELAND for his works on accounting; to THE JOURNAL OF ACCOUNTANCY for several articles published therein; and to the *Government Accountant*; all of which served to render considerable assistance to those engaged upon the work. Quotations are given from the writings of DR. CLEVELAND regarding the results that should be obtained from an adequate system of accounts.

Comptroller William Sohmer of New York, under the authority vested in him by law, has been the first state comptroller to prescribe a uniform system of accounting for cities. In view of this fact, he should be complimented for the progressive step taken; which should result in other states prescribing uniform systems, thus benefiting not only the taxpayers where such systems are installed, but all persons in any way interested in the finances of these municipalities.

The lucidity of the prescribed system goes far toward assisting the fiscal administrators who install it, and in addition the state comptroller has volunteered to send experts from his office to visit these cities weekly with a view to furnishing information on any question arising on the accounting of a municipality, and especially regarding the system of accounts prescribed by him. This in itself is of considerable importance and value, not only to financial officers of experience, but more especially to those recently elected to these highly important offices. The system is furnished without any expense whatever by the municipality for accounting advice and assistance other than the meagre expense of providing a few books necessary, in some cases, in addition to those which are in use at the present time.

From the reports which can be compiled from the cities using a uniform system of accounts, the data available may be of

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great service in showing comparative statistics of operations, which heretofore have been lacking in a large degree, and at the same time the information required to judge the efficiency of an administration may be obtained.

It has not always been possible for cities to show their margin of debt limit, which is so often required by financial houses interested in their bond issues, while the accounting of these cities has been carried on a cash basis plan. This fault will be overcome by the prescribed system, which will show a balance sheet setting forth all the obligations of the municipality at the close of every month.

## **Adoption of By-Laws**

BY THOMAS CONYNGTON

*Member of the New York Bar*

### **Second Article**

#### **CORPORATE POWER OF ADOPTION**

The power to make by-laws for the government of the corporation and the guidance of its officers is one of the inherent and essential powers of a corporation. As was said by Lord Hobart in the early part of the seventeenth century: "Now I am of the opinion, that though power to make laws is given by special clause in all corporations, yet it is needless; for I hold it to be included, by law, in the very act of incorporating, as is also the power to sue, to purchase or the like."

A century and a half later, Blackstone includes among the "powers, rights, capacities and incapacities" of the corporation, "the power to make by-laws or private statutes for the better government of the corporation; which are binding upon themselves, unless contrary to the laws of the land, and then they are void. This is also included by law in the very act of incorporation; for as natural reason is given to the natural body for governing it, so by-laws or statutes are a sort of political reason to govern the body politic. And this right of making by-laws for their own government, not contrary to the law of the land, was allowed by the law of the twelve tables of Rome." Later Kyd includes among the incidental powers of corporations, the power "To make by-laws, or private statutes for the better government of the corporation."

More recent statements are of the same general tenor. "Corporations have the right to manage and control their affairs subject to the general laws of the land as they may deem advisable, and, as incident thereto, to make such by-laws as will best effectuate the objects proposed to be accomplished." "Although the authority to enact such by-laws, is frequently declared in the charter of the corporation, or by some general law, yet the

\* Sustaining citations have been omitted.

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authority to enact them does not depend upon such declaration, but is an inherent right which, in the absence of some positive legislative restriction, is incident to every corporation." "Where a corporation is created there goes with it the power to enact by-laws for its government and guidance, as well as the guidance and government of its members. The power is necessary to enable a corporation to accomplish the purpose of its creation." "The incidental power of the corporation to make by-laws results from the necessity of such power to enable the body politic to answer the purposes for which it was created." "The right of a private corporation to enact such by-laws is inherent and incident to its existence." Or as expressed in one of the early New York cases, "The power to make by-laws is one of the characteristic features of a corporation."

This common law power to adopt by-laws inheres in voluntary associations as well as private corporations. "A voluntary association whether incorporated or not, has, within certain well-defined limits, power to make and enforce by-laws for the government of its members."

### LIMITATIONS UPON CORPORATE POWER OF ADOPTION

The power of the corporation to adopt by-laws is limited to such enactments as do not conflict with the law of the land, the charter of the corporation and the general rules of equity and justice. By-laws must also be confined to carrying into effect the proper purposes of the corporation as defined by its charter. *Ultra vires* by-laws are void.

If the statutes of the state or the corporate charter expressly empower a corporation to make by-laws for particular purposes or relating to specified matter, it has been supposed that the legal maxim *expressio unius est exclusio alterius* would apply and that the corporation would be incapacitated to make by-laws for other purposes or relating to other matters. The doctrine appears to rest solely on one early case. "This was the case of the Hudson's Bay Company, who were made a corporation by charter, and were thereby empowered to make bye-laws for the better government of the company, and for the management and direction of their trade to Hudson's Bay: 'which' it was said 'implied a negative that they could not make any other bye-laws

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in relation to projects of insurance.' " The author, however, continues further, "It is apprehended, that without this implied negative, arising from the power to make bye-laws being expressly given, they could not have made any bye-law on any subject which did not relate to their trade to Hudson's Bay; because any such bye-law would have been foreign to their institution."

But one case directly involving the principle of *expressio unius est exclusio alterius* seems to have come before the courts in this country. In this case the legality of a by-law restraining the transfer of stock was at issue. The action was brought in Rhode Island. The court held that, as the defendant corporation was organized under the laws of Maine, the laws of Maine should apply; and, apparently basing its decision upon a misapprehension of the ruling in *Kennebec, etc. R. R. Co. v. Kendall*, 31 Me., 470 (1850), held that the Maine statutes having specified certain subjects upon which by-laws might be passed, by-laws on any other subject were *ultra vires*, and the particular by-law not being among those permitted by the statute was therefore void and of no effect. Upon a re-hearing this ruling was repudiated. The by-law restraining the transfer of stock was again declared invalid, but this time upon the broader and better ground that it was in itself *ultra vires* and against public policy. It may be said further that the general doctrine is of but little importance in these present days, since the power to make by-laws when conferred by charters of modern corporations, is almost invariably in terms so general as to permit of by-laws for any proper corporate purposes; and the power when conferred by statute, as is the case in many states, is usually so broadly stated that the question of limitation does not enter.

Where, however, a power is given to a *select body* in contradistinction to a power given to the *whole body* to make by-laws on a particular subject, the doctrine does apply and such select body cannot legislate beyond the specified subjects. Thus where the stockholders, the charter, or the statutes empower directors on particular subjects, their authority does not extend to making by-laws on other subjects. Likewise, where power is given to a board of aldermen or to some other municipal body to legislate on particular subjects, there is no inherent power in such body to legislate on other subjects or to go beyond the limits of the specific authority.

## *Adoption of By-Laws*

### STOCKHOLDERS' POWER TO ADOPT

Unless otherwise vested by charter or statute provision, the power to make by-laws rests with the stockholders who must act in duly assembled meeting. The stockholders have but few functions to perform and this right to make by-laws is one of the most essential and important. "This power, like every other incidental power, is incident to the corporation at large, and not to any select body." As stated in *Angell v. Ames* (Sec. 327) "Unless by the charter, or some general statute to which the charter is made subject, or by immemorial usage, this power is delegated to particular officers or members of the corporation, like every other incidental power, it resides in the members of the corporation at large."

### DIRECTORS' POWER TO ADOPT

The board of directors have no power to enact by-laws unless so authorized by law, by the articles of association or by proper action of the stockholders. Even when the statutes give the directors power to make by-laws on prescribed matter, the power to make all other needful or necessary by-laws is conferred upon the corporation itself and can be exercised only by the stockholders.

The stockholders may, however, delegate the power of adopting by-laws to the directors. The power is "incident to the corporation at large, and not to any select body; yet where it belongs to the corporation at large, they may delegate it to a select body, who then become the representatives of the whole community, and may exercise it to the same extent that the whole community might do." But the stockholders cannot delegate to the directors, save by charter amendment, the exclusive right to make by-laws.

When power to make by-laws is not given by charter or the law of the land to the directors, they only have power to make by-laws subordinate to those passed by the stockholders. That is, the board of directors may legislate upon any new subject concerning which the stockholders have passed no by-laws, or they may pass additional by-laws supplementing by-laws already passed by the stockholders, but they cannot repeal or

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alter a stockholders' by-law already adopted, and if there is any conflict between the directors' by-laws and the stockholders' by-laws, the stockholders' by-laws will prevail. Also even though the directors are empowered to make by-laws by the charter or the by-laws, the stockholders may under any ordinary circumstances recall the directors' power at any time by an amendment of the charter provision or by a repeal of the enabling by-law.

When the power to adopt by-laws is given the directors by charter provision, this does not exclude the stockholders from making by-laws, unless expressly so stated or directly to be implied from the terms of the charter.

In Illinois, Kentucky and the District of Columbia the directors of a corporation are by statute given the exclusive power to make, amend and repeal by-laws. This precludes the stockholders absolutely from any voice in the regulation of corporate affairs and is a curious reversal of the usual theory of corporate action. It permits the directors, who act as trustees of the corporation, to prescribe their own duties and responsibilities and takes from the stockholders all power to limit or restrain the directors' action in any way. In these states where this condition prevails not even by charter provision or by the action of the directors themselves may the power of the directors as to by-laws be altered or abridged.

Thus in a recent Illinois case, the directors had passed a by-law requiring that by-laws passed by them should be ratified by a vote of the stockholders before they were binding upon the corporation. The court held, however, that the stockholders' ratification was not necessary. "If it be held that the limitation found in by-law No. 16, requiring the ratification by the stockholders of a change of the by-laws made by the directors, is valid and binding, then we are to hold in effect, that one board of directors at one time may place a limitation upon themselves or future boards of directors in the matter of making by-laws, and add requirements neither provided for in, nor contemplated by, the law of their creation. Such, we think, is not the law, nor do we think it should be so."

In certain other states, as New Jersey, Delaware and Pennsylvania directors may by special charter provision be given power to alter the by-laws. Thus in New Jersey the statute reads:

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"The power to make and alter by-laws shall be in the stockholders, but any corporation may in the certificate of incorporation, confer that power upon the directors; by-laws made by the directors under power so conferred may be altered or repealed by the stockholders."

In states such as New Jersey in which the statutes provide that power to make by-laws may be delegated to the directors by charter provision, the extent of the power which can be granted depends entirely upon the wording of the statutes. Under the New Jersey statute it is doubtful whether the directors can be given power to repeal a by-law passed by the stockholders. Also it is to be noted that in New Jersey by-laws enacted by the directors are by the statute provision always subject to amendment and repeal by the stockholders.

In other states, as New York and Minnesota, the directors are by statute given power to make by-laws in conformity with or subordinate to the by-laws adopted by the stockholders. Thus the New York statute reads:

"Subject to the by-laws, if any, adopted by members of a corporation, the directors may make necessary by-laws of the corporation."

Under this provision, it is obvious that the exclusive power to make by-laws could not be conferred upon the directors by the charter. From the practical standpoint the directors, whether authorized to adopt by-laws or not, have authority under their general powers of management to provide for almost any contingency not already provided for, even though the matter affected be a fit subject for by-law regulation. In such case the board passes a resolution providing for the matter under consideration, and this resolution controls and has the effect of a by-law until it is repealed or superseded by action of the stockholders. In a recent text book this rule is given as follows: "Even where the power to enact by-laws is lodged with the shareholder, the directors may always and in subordination to the shareholders, make rules for their own orderly action and for the government of the company's agents. By whatever name these rules may be called, they are in their nature by-laws."

### PROCEDURE FOR ADOPTION

(a) Formal Procedure. Whenever the statutes prescribe the method by which by-laws are to be adopted, no other legal method

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exists. Under such circumstances by-laws must be adopted in strict accordance with the statutory requirements, and any other method of adoption is ineffective and by-laws so adopted are invalid.

Likewise, if the charter prescribes the method by which by-laws are to be adopted, this method must be strictly followed and by-laws adopted otherwise are of no effect.

If neither the statutes nor the charter prescribes the method of adoption, the rules of the common law apply, and by-laws may then be adopted by a majority of the assembled stockholders at any duly constituted meeting.

Speaking generally, by-laws may be adopted only at a duly assembled meeting of the members or stockholders of the corporation or at a duly assembled meeting of the directors when these latter have power to adopt by-laws. It is usually provided that a quorum must be present at the meeting and a majority of the votes cast thereat must favor the adoption of the proposed by-law. It is obvious that by-laws cannot be adopted before incorporation as the corporation is not in existence then. Nor after incorporation can by-laws be adopted at meetings held outside the state unless the statutes or charter so provide.

When neither statute, charter nor by-law provides that the presence of a quorum at the meeting is necessary for the adoption of by-laws, the common law rule prevails; and under this rule the stockholders who assemble at the proper time and place for the meeting constitute a legal quorum regardless of their number and may adopt by-laws and take any other proper corporate action. As stated in Cook on Corporations, Sec. 607: "The law is clear that those stockholders who attend a duly called stockholders' meeting, may transact the business of that meeting, although a majority in interest or in number of the stockholders are not present."

In a select body, as the board of directors, the common law rule as to quorum is different. Here a majority of the entire body must be present to constitute a quorum, unless expressly otherwise provided by some competent authority. The vote of a majority of this quorum is, however, sufficient to adopt by-laws.

As by the common law rule, a bare majority of a quorum of

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stockholders may alter the by-laws of a corporation, it is obvious that where this rule prevails—as is the case whenever the statutes are silent on the subject and neither charter nor by-laws provide otherwise—a very small minority might under some conditions be able to alter the by-laws of the corporation, possibly entirely against the desires of a non-present majority. To avoid this possibility, it is usual to provide in the charter or by-laws that a majority of the outstanding stock shall be necessary to constitute a quorum.

Unless otherwise specifically provided by some competent authority, additional by-laws may be adopted at any regular or stated meeting of the body having power to adopt or amend, or at any special meeting where such proposed action has been specified in the call and set forth in the notice to those entitled to participate. In a Pennsylvania case it has, however, been held that the by-laws cannot be amended at an annual or stated meeting unless such action has been announced in the notice of the meeting. This is contrary to the general law on the subject.

(b) Irregular Procedure. As already stated, when the procedure for adoption of by-laws is fixed either by the charter or statute, they cannot be adopted by any other procedure. "Neither a by-law nor a usage having the force of a by-law can be supported if repugnant to any provision of the charter \* \* \*. The charter is the measure of its powers and privileges, and, where the mode of exercising any of its functions is therein prescribed, it must be strictly pursued." But when neither charter nor statutes prescribe the method of adoption, a corporation may adopt by-laws by its acts and conduct, as well as by an express vote in writing.

Irregular adoption is in most cases by usage. It is well settled that unless otherwise required by statute, by-laws may be unwritten—never recorded. In *Mutual Fire Insurance Company vs. Tarquhor*, 86 Md., 668, it was held that "A long continued, unbroken and uninterrupted custom or usage, such as is set up by the defense in this case, is held by all the authorities, to which we have been referred, to be of the nature of a by-law, and to be equally obligatory and binding." In another similar case it was held that "A custom or usage so long continued and so invariably pursued has the force of a by-law, and not being repugnant to any of the provisions of the charter, is valid."

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No particular length of time is required to establish usage. In a Wisconsin case it was said: "It thus appears from the pleadings that at least three annual meetings for the election of officers had taken place prior to that at which the defendant claims to have been elected to the office of treasurer, which was time enough for a usage to spring up and become established as well as to give a practical construction to the by-law."

As before stated, by-laws cannot be adopted before incorporation, but if by-laws are so adopted, subsequent usage of, and acquiescence in these by-laws may be held to imply adoption.

Where the by-laws of a close corporation required five directors, and the stockholders, three in number, ignored the by-laws and elected but three directors, it was held that the by-law was "changed by the unanimous consent of the stockholders," and that the board of three was a legal board.

Thus, also, where by-laws were published and acted upon as the by-laws of the company, no record showing their adoption but the by-laws bearing the signatures of more than a majority of the incorporators, it was held that such by-laws "were undoubtedly adopted, though informally."

And where the directors were given exclusive power by charter to adopt by-laws, and the stockholders adopted by-laws before incorporation, and these, though never formally adopted by the directors, were regarded by them and acted upon as the by-laws of the corporation, it was held that this recognition was equivalent to an adoption.

### RECORD OF BY-LAWS

When by-laws are adopted it is the duty of the secretary of the corporation to record them properly, preferably in the minute book. Such entry affords the best legal evidence of the adoption of the by-laws if at any time it is desired to prove their legality.

In some few states, *vis.*, California, Idaho, North and South Dakota, and some few others, the by-laws must be entered in a "Book of By-laws" before they become legally effective. In California and North Dakota this book of by-laws must be kept open to the inspection of the public. In Minnesota the by-laws must be filed with the Secretary of State and also be posted for inspection in the principal place of business of the corporation.

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In Nevada the by-laws must be entered in a book of by-laws which must be kept at the principal office of the corporation. In Iowa a copy of the by-laws and a list of the corporate officials must be kept posted in the principal places of business of the corporation for public inspection. In Nebraska a copy of the by-laws must be posted in the principal office of the corporation. In the Philippines a copy of the by-laws must be kept in the principal office of the corporation for inspection, and a certified copy must be filed with the Chief of the Division of Archives and be by him filed with the original certificate of incorporation.

It is to be noted, however, that while, as a matter of good practice, by-laws should always be properly recorded, they need not necessarily be in writing or be recorded in any other way unless required by some competent corporate authority.

### **BY-LAWS AS EVIDENCE**

If the by-laws of a corporation are to be used as evidence in a court of law, they must be pleaded, and the minutes of the meeting at which they are adopted and in which their adoption is recorded should be introduced. This is the best evidence that can be had.

If the original minutes cannot be produced, a printed copy of the by-laws as distributed among the members or stockholders may be used, or, if no better evidence can be had, parole evidence of the actual usage of the particular corporation in regard to the matter to be established, may be introduced. When better evidence can be had, the testimony of officers of the corporation as to its by-laws is not competent.

By-laws informally adopted may be proved by usage. "By-laws may be proved as well by the acts and uniform course of proceeding of the corporation, as by an entry or memorandum in writing."

For all ordinary business purposes, where it is desired to prove the by-laws of a corporation or some portion thereof, the by-laws, or the particular portions to be proved, are copied and the correctness of this copy is then certified by the secretary or equivalent officer and evidenced by the corporate seal. These certified copies may in most cases be used in any action at law against the corporation as evidence as to the subject-matter of the particular by-law or by-laws so certified.

## Deprecation in Valuations

BY EARL A. SALIERS, PH.D.

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The valuation of the properties of public service corporations for purposes of rate-making, purchase, taxation and capitalization today constitutes an important function of commissions and courts. Those industries which are clothed with a public interest are placed in a separate category, although their legal status does not appear as yet to be definitely outlined. Some fundamental distinctions exist between them and ordinary private enterprises which necessitate an uncommon degree of governmental supervision. The interest of the public is directly involved; consequently the need of safeguarding the public interest by some form of supervision.

The state railroad commissioners have shown the ability of the state to control, to a greater or less degree, an industry of a quasi-public character; while many states now have public service commissions which were formed by expanding the power and jurisdiction of existing commissions, or were newly created by legislative enactment. This innovation is due to the multiplication of corporations engaged in the telephone, telegraph, street railway, water and gas supply businesses, collectively known as public utilities, and adapted to control by commission for reasons to be noted.

Public utilities affect the welfare of the people whom they serve through quality of service offered and charges demanded. Usually they are monopolies possessing franchises granted by state or municipality. Oftentimes they are exclusive producers of a service because an attempt to duplicate their work results destructively. Two characteristics of public utilities—monopolistic form and extensive service—render commission control desirable; competition cannot act as a rate regulator, since it leads to injurious rate wars if active, and the public interests are at stake.

Already in several states the work of valuing both the physical and non-physical properties of public service corporations

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has been extensively undertaken. Principles governing all possible cases have not been finally promulgated, it is true, but much has been accomplished in the way of establishing sound rules of procedure. In many cases precedent is sufficiently strong and authoritative to make possible the statement of what may be expected with certainty to be the future attitude. In other cases reports and decisions are conflicting, and the ultimate outcome must depend upon further elucidation of the matter or upon the decision of the Supreme Court.

It may be stated definitely that a differentiation must be made between valuations made for different purposes, rate-making, purchase, etc., but we cannot say just how the differentiation should be made. Just what elements ought to be excluded in one case or included in another, is a concrete problem that can be solved only in connection with each case as it arises. Taxation valuations must not be confused with valuations for purposes of capitalization or rate-making. In Texas a valuation was made of the physical property of railroads for taxation, but the Supreme Court of the United States declared that the results could not be used for rate-making because the basis of valuation was too narrow to comprehend all values. Is it not often admitted that tax values of physical property ought to be lower than capitalization values to prevent over-taxation of tangible property? It was recently disclosed that in St. Paul tax values equal about 60 per cent of normal selling prices.\* One public service commission states that its findings for capitalization purposes are not intended for rate-making purposes.† A corporation may hold assets for speculation, but not employ them in affording its customary services to the public. Consequently the corporation is not justified in basing its rates upon such property, although it ought to pay taxes on it. Methods and results of one valuation may be useful in another, but a valuation must be made with a view to its particular object.

It follows that certain considerations may or may not be of weight. Depreciation is an important consideration in most valuations in which physical property is under examination, and sometimes even in the case of non-physical property. It appears

\* *Supplement to the Annual Report of the Railroad and Warehouse Commission of Minnesota*, Nov. 30, 1908, p. 16.

† *P. S. C. R. (First Dist. N. Y.) Re Reorganization of Metropolitan Street Railway Co.*, Case No. 1305.

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that the only question as to the inclusion or non-inclusion of depreciation is answered when we have decided what items of a depreciating character are to be included or omitted. Is depreciation a condition whose weight is determined by the purpose of the valuation, or is it absolute and the same in all cases? Evidently the latter, for although different estimates may be made of its amount, this is due to disagreement on the part of the experts who do the valuing. They attempt to discover what all admit to be the same.

This being granted, the problem of depreciation remains the same under all circumstances, whether the valuation is for rate-making, taxation, capitalization, or purchase. It will be the same for each item, although items that are considered in one case are properly omitted in another. The distinction is not one of depreciation, but of the inclusion or exclusion of depreciating values.

Depreciation is an important factor in valuations. It is a different problem from the ordinary one in depreciation—writing down assets and creating sinking funds for their ultimate replacement. In valuations we seek present values—values of today—not to note depreciation over long intervals and to make replacements. The worth of an asset at some particular time in its life has not much bearing on ultimate replacement. To create a replacement fund we need know only lifetime and replacement cost. Greater rapidity of depreciation may occur early or late; the replacement fund can nevertheless be formed by equal additions each year, or by greater or smaller additions during either the earlier or later years.

In all valuation the distinction must be made between cost or cost-to-reproduce on the one hand and present value on the other. Original cost and cost-to-reproduce are usually different, so that the real expense of depreciation is the difference between present value and cost-to-reproduce, not between present value and original cost. A machine, purchased ten years ago for one hundred dollars, is today worth fifty dollars; but it will cost two hundred dollars to replace it. It has depreciated, not fifty, but one hundred and fifty dollars and the replacement fund must be correspondingly increased.

Cost-to-reproduce is sometimes more easily found than original cost. The original records of many railroads, as well as

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other utilities, may have been destroyed, or the road has experienced so many receiverships, supercessions, and reorganizations that its identity has been lost. So it is well that accrued depreciation is the difference between present value and cost-to-reproduce.\*

Present value plus replacement fund—if it exists—may not equal or even approximate cost-to-reproduce, although it is too often assumed that it does. Whether it does or not is not the leading question in valuations, but in replacements. As stated in the Metropolitan reorganization case, “The problem \* \* \* is not how to meet and provide for decrease in values, but what is the fair value of the plant at present.”† Sinking funds may provide ultimate replacement even though capital remains impaired to a considerable extent meantime, which will occur unless the fund accumulates at least as rapidly as value disappears.

Obsolescence or supercession is a phase of depreciation to be considered in valuations. The folly of retaining obsolete or obsolescent goods at original values was shown in the investigations of the New York Public Service Commission (First District) in the Metropolitan reorganization case. Within a period of twenty years many miles of track once constituting the most valuable lines had fallen into disuse. One company with outstanding bonds amounting to one million dollars par value could neither sell nor lease its track, nor get money to operate. Obsolescence is illustrated by the present inadequacy of horse car lines. Horse car lines established eight years before valuation were said to have seventeen years of service remaining, although the system is today obsolete and impractical. According to testimony, a certain sum annually set aside or expended would furnish renewals indefinitely and keep up an old horse car system; but simply to provide for keeping up an old horse car road is not good business policy.

Failure to allow for future displacements by more up-to-date equipment led to the issue of new securities for the purchase of electric equipment, and over-capitalization resulted. Values once amounting to many millions of dollars had ceased to exist. Yet the company held that these values should not be written off because allowance had been made for developmental ex-

\* See *John G. Mayhew and Others v. Kings County Lighting Co., P. S. C. R.* (First Dist. N. Y.), Case No. 1278, p. 21.

† Case No. 1805, p. 155.

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penditures in certain rate cases, although no visible evidence thereof remained. But this was not a rate case. The question was, to what extent should securities be amortized; and the Commission rightly contended that securities held for property now non-existent should be amortized.\*

Valuations made by commissions indicate what inadequate steps are taken to forestall depreciation and obsolescence. In the Queens Borough Gas and Electric case the New York Commission (First District) found this situation: reproduction cost, \$1,608,492; present value, \$1,139,812; depreciation, \$468,680. Depreciation due to wear and tear, or "physical" depreciation, only is indicated, no allowance being made for future abandonments and supercessions consequent upon discoveries, inventions, and improved processes, or "functional" depreciation. The wide margin between reproduction cost and present value resulted largely from failure to establish adequate depreciation reserves.†

Land, in valuations, is an element that must usually be considered in a class by itself. It is not a wasting asset. Land normally appreciates, not through alterations in physical texture or arrangement, but because of its scarcity, its location, or the impossibility of duplication. Whether or not land and appreciating land values ought to be considered in valuations will depend on the purpose of the valuation. Where a public utility corporation possessed several tracts of land, it was held that only those actually and necessarily devoted to public use could be included for rate-making purposes. This despite the fact that rising land values may make it wise for the utility corporation to purchase lands that may not be "used and useful" in its service to the public for some time to come. Such a situation may justify the purchase, but not the inclusion of the value thereof for rate-making, although it ought to be included in values for taxation.

If we may believe the statement of the New York Commission, appreciation is a simpler proposition, and more easily handled, than depreciation. It says: "If property is growing more valuable, the investor need not worry; and if the state recognizes his right to earn a fair return upon the increase, he is fully protected. It is not necessary that the increase be represented by stocks and bonds, for if the earning power is there, he

\* Case No. 1805, p. 159.

† P. S. C. R. (First Dist. N. Y.) Order and Opinion of June 28, 1911.

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will receive a return thereon, regardless of the amount of securities \* \* \* " But can the matter of securities be so lightly brushed aside? It is true that, as was stated by the Railroad Securities Commission,\* the amount of the stocks and bonds is a matter of historical importance only, also par value is not a measure of actual value. But does this mean that the amount and par value of the securities are matters of no consequence? In *Smyth v. Ames*, the Supreme Court said that, to ascertain fair value of property, among other things to be considered are "the amount and market value of its bonds and stock."†

But assuming the securities to be of little importance in appreciation, would they be more important in case of depreciation? Is there not more danger of radicalism in writing up assets on the score of appreciation than in writing them down on the score of depreciation? One points toward over-capitalization, the other toward the formation of secret reserves. Which will lead to greater complications?

To what extent may such increment, resulting not so much from judicious management as from normal community growth, be allowed to determine rates and income? We have the authority of the Supreme Court of Minnesota, in *Steenerson v. Great Northern Railway Company*,‡ that a railroad is entitled to earn a fair return on the cost of reproduction of its property; also the authority of the Supreme Court of the United States, in *Willcox v. Consolidated Gas Company*, that, if property legally entering into the consideration of the rate question has increased in value since acquisition, the company is entitled to the benefit of the increase, adding, however, that this is the general rule, and that there may be exceptions "where the property may have increased so enormously in value as to render a rate permitting a reasonable return upon such increased value unjust to the public."||

Thus there appears to be a limit to the growth of values upon which a public service corporation is entitled to what would ordinarily be called a fair return. There is a common tendency on the part of courts and commissions to place a limitation upon increasing values for rate-making purposes. The Interstate

\* Report of the Railroad Securities Commission, p. 32.

† 169 U. S., 466.

‡ 89 Minn., 353. (1897.) The same attitude is taken in the more recent case of *Shepard v. Northern Pacific Railway Co.*, 184 Fed., 765 (1911).

|| 212 U. S., 19.

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Commerce Commission faced this question in its investigation of advances in rates by carriers in Western Trunk Line territory.<sup>‡</sup> Railway officials declared that they possessed a "legal right" to a fair return, not on the original investment, but on the estimated present value, resulting largely from increase in land values, and amounting to many millions of dollars. Admitting the great services of the railroad to the state, the Commission asked whether larger income should not be derived from increased traffic rather than from heavier tolls on those already served. Public service corporations do business with the expectation of deriving an income from services rendered to the public, not from investments in land whose value happens to be increasing. "Whatever the true economic or legal view may be as to the right of a carrier to consider the increase in value of its land as a part of the value upon which it is entitled to a reasonable return," says the Commission, "such increase in value does not of itself establish the right of a carrier to increase rates upon a given service." This may be interpreted as leaving the question unsettled, since average rates may be made to furnish a fair return on increased values even though certain specific rates do not.

It is the belief of the Minnesota Railroad and Warehouse Commission that if railroads are permitted to realize on continually increasing land values, by employing them as a basis for computing returns, they will ultimately absorb a disproportionate share of the country's wealth.\*

The phrase "cost of reproduction" has on certain occasions been given an unusual interpretation. Railroad officials have argued that land owned by their companies ought not to be valued at present market value, because the railroads, were they actually to buy the lands, would pay more than market value. So this additional cost is added to market value to determine cost to replace. That railroads do pay exorbitant prices for land is well known. This is because of injury resulting to contiguous property, and because landowners sometimes look with disfavor upon the projected road and take the opportunity to fleece the company.

If land is valued on this basis, a certain multiple of market

\* Opinion No. 1509. Decided Feb. 22, 1911.  
Supplement to An. Rep., Nov. 30, 1908, pp. iv-v.

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value must be taken to arrive at reproduction cost. In Minnesota, investigation of a section of the Illinois Central indicated that of 35% of the right of way secured by condemnation the company paid about  $4\frac{1}{2}$  times average true value, while of the 65% purchased by agreement the price was 1.7 times average true value. Terminal lands in St. Louis cost  $1\frac{3}{4}$ , in Minneapolis  $1\frac{3}{5}$ , and in Duluth  $1\frac{1}{4}$  times normal value.

But when allowance has been made for actual excessive cost of land to railroads, it does not necessarily follow that they may write up these lands by the same multiple above *present* market values. Value as utility may be a more important consideration than reproduction cost in some cases, and we cannot, for rate purposes at least, accept extremely high valuations of property because it cannot be reproduced, or if it can, at only very high prices. To establish original cost the railroad multiple should be used; also to establish cost of reproduction and appreciation. But full cost of reproduction may not be allowed as a basis for rates.

The so-called "sales method" of determining present value has its uses and limitations. It is based on the assumption that as the assessed valuation of surrounding properties is to real value so the assessed value of the property in question is to its real value. Thus if land in a city is assessed at 60% of selling price, and a railroad buys 40 acres of land within the city limits for \$12,000, the same land being assessed at \$6,000, then the normal selling value would approximate  $\$6,000 \div .60 = \$10,000$ . So the railroad paid \$2,000 above normal. The efficacy of this method is dependent on two things: (a) sufficient number and variety of transfers to afford an accurate statement of average values, and (b) equity of the assessed valuations. But inequality of assessment is notorious, and it seems that the method can be employed only within rather narrow limits and then may well be checked up with other available information. With this method, present normal value having been found, appreciation or depreciation is the difference between the cost and present normal value plus the amount that cost exceeded normal value at time of purchase. This takes into consideration the original cost above normal, but does not create an additional value by allowing a multiple on value due to appreciation as well as on original normal value.

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The roadbed usually appreciates during the first few years, when inequalities and defects occur from sinking, sliding, etc., and it is necessary to repair it by charging to operation, although really a capital expenditure. Additions of earth and stone are required and the roadbed slowly grows firmer and safer as the old material grows more compact. In valuations allowance may be made for this by placing present value equal to cost-to-reproduce, and entering value due to adaptation and solidification under a separate head representing appreciation after operation begins. The Minnesota Commission allowed over 10% of original cost for this item upon lines of the Northern Pacific aggregating over 1,500 miles; while upon the lines of the Minneapolis Western Railway, with a mileage of 6.89, it allowed but slightly over 1%. The difference in the two cases was due to the better seasoning of the roadbed of the Northern Pacific. The Washington Commission says that appreciation continues about five years, when the value of the roadbed is approximately 10% greater than when new.\*

Equipment, structures, material, etc., inevitably depreciate, and various methods have been employed to indicate the extent to which at a specified time depreciation has occurred. In Michigan and Wisconsin, where valuations were made by tax commissioners, estimates were made of the present value of each unit. In Michigan alone more than 40,000 freight cars were thus inspected. A more economical and more accurate method was employed by the railroad commission of Washington. "Mortality tables of structures," working upon the same principles as life mortality tables, were used. Experience shows that similar structures, units of equipment, etc., have a definite average lifetime. Thus the average life of freight cars is about 25 years, losing about 4% of their value each year, on an average. By multiplying the age in years by 4%, the expired life is ascertained. This is then subtracted from 100, the remainder showing what percentage present value is of cost new. To employ this method, the date of construction and cost new must be known.

A plant composed of various physical units is best when new, and ordinarily will not again be worth its original service value except in the rare case of complete replacement. During the

\* *Findings of Fact by the Railroad Commission of Washington relative to the Valuation of Railroads*, p. 164.

### *Depreciation in Valuations*

first years a gradual physical depreciation occurs when very few repairs, if any, are needed. When repairs do become necessary they do not bring the plant back to original value, but only keep it from becoming less valuable. When the point will be reached where, through repairs and replacements, further diminution of value by depreciation is prevented, depends upon several conditions, but it appears to be, in many cases, the time before service values have decreased to 75% or 80% of original service value.

Thus over-capitalization may be an unwished for feature of an enterprise, resulting from this situation, in spite of full repairs and high efficiency. There are two possible ways of preventing such over-capitalization. One is to amortize capital by returning to the stockholders an amount equal to the fall in values, thus diminishing capital. The other is to create a replacement fund to compensate for decline of values, and retain capital at the old figure. The replacement fund may be employed to purchase additional assets instead of making specific replacements, and still the transaction will be essentially a replacement. The depreciation reserve will accumulate rapidly during early years when repairs are few, and should furnish an amount sufficient to amortize capital or to secure the replacement of decreased asset value by needed improvements. If capital is amortized the permanent charge necessary to give a fair rate of income is lessened. If the fund is used for replacements the permanent charge will not be diminished.

In addition to material assets certain values of an overhead character, arising from costs of engineering, promotion, contingencies, etc., may or may not require to be written down.\* The rule is to write them down if they will be incurred again in case of replacement or supercession, and to retain them at original value if they will not be incurred again. But in the decisions thus far handed down there is lack of agreement and the matter remains largely tentative.

Recent valuations have done much for our enlightenment on

- \* Whitten, in his "Valuation of Public Service Corporations," lists the following overhead charges as elements in reproduction cost:
  1. Engineering and superintendence.
  2. Contingencies.
  3. Contractor's profit.
  4. Interest during construction.
  5. Legal and general expense, company organization, taxes and insurance.
  6. Promotion.

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depreciation in its various phases. Consideration of its principles in valuation has indirectly shown the need of a more scientific procedure in ordinary accounting, such as the establishment of adequate reserves for replacement; and it has shown the results of neglect and carelessness in this matter. Much still remains to be done to remove many matters of doubt from their present tentative situation.

## Assessments on Stock of Corporations Organized Under the Laws of California\*

From a very general examination of a summary of the corporation law of the various states, it would appear that California is one of the few states where directors of a corporation can levy assessments on fully paid stock, and it may, therefore, be of interest to look into the law and the accounting questions in connection therewith:

### *Legal Provisions*

The following is a summary of the more important provisions regarding assessments:

"Directors may levy assessments for the purpose of paying expenses, conducting business or paying debts.

"No assessment must exceed 10% of the amount of the capital stock.

"The order levying an assessment must specify the amount thereof; fix a day subsequent to the full term of publication of the assessment notice on which the unpaid assessments shall be delinquent, not less than thirty nor more than sixty days from the making of the order; and a day for the sale of delinquent stock, not less than fifteen nor more than sixty days from the date the stock was declared delinquent.

"The notice of assessment must be served on the stockholder or sent to him through the mail and advertised in a newspaper once a week for four successive weeks.

"The secretary shall also publish in a newspaper a notice declaring stock delinquent and specifying a day on which the stock shall be sold at public auction.

"When sold at auction so many shares are sold of each parcel of stock as may be necessary to pay delinquent assessments, together with advertising and expenses of sale.

"If at the sale of stock no bidder offers the amount of assessments and the costs, the same may be bid in and purchased by the corporation at the amount of assessment and costs; and the

\* Contributed by a correspondent.

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amount of the assessment cost and charges must be credited as paid in full on the books of the corporation and entry of the transfer of the stock to the corporation made on the books thereof. While the stock remains the property of the corporation, it is not assessable nor must dividends be declared thereon. Stock so purchased is held subject to the control of the stockholders who may make such disposition of the same as they deem fit.

"No assessment must be levied while any portion of a previous one remains unpaid."

Taking the minimum notice that must be given, it would appear that if all assessments are paid, assessments not exceeding 10% could be levied each month, while if any assessments were delinquent the minimum period would be each 45 days.

#### *Advantages of being able to Levy Assessments*

It will be understood that where a corporation cannot readily borrow money either by loan or by an issue of bonds the ability to levy an assessment is of considerable advantage, especially in view of the fact that according to California law bonds cannot be issued in excess of the capital stock. It also enables a company to start with a comparatively small capital and secure its cash requirements from time to time as is found necessary. This is frequently done by mining or oil companies where assessments are levied from time to time to pay for development work until the company gets on an earning basis.

#### *Possible Abuses*

The principal opportunity for abuse of the provision is the power which it gives to a board of directors to "freeze out" small stockholders. It has been alleged in several cases that directors have levied assessments from time to time until the small stockholders became weary of paying assessments and either let their stock become delinquent or sold it at a comparatively small price. In the case of a corporation controlling the stock of another corporation this is particularly easy, as the holding company, through its control of the directors of the subsidiary, can levy assessments which the minority stockholders must either pay or lose their stock through its becoming delinquent. The cash paid by the holding company on its assessment can, of course, easily be gotten back as a loan from the subsidiary.

## *Assessments on Stock of Corporations Under Laws of California*

### *Assessments Levied on Preferred Stock*

Prior to 1907 no specific provision existed in the California statutes for different classes of stock, and before that time practically all California corporations had only one denomination of stock.

In 1907 the following clauses were added:

Corporations may by their articles of incorporation provide for the classification of their capital stock into preferred and common stock.

The articles of incorporation shall also state, in clear and succinct manner the nature and extent of the preference granted, and except as to the matters and things so stated, no distinction shall exist between said classes of stock or the owners thereof; provided, however, that no preference shall be granted nor shall any distinction be made between the classes of stock either as to voting power or as to the statutory or constitutional liability of the holders thereof to the creditors of the corporation.

No distinction is made in the code regarding the levying of assessments on different classes of stock, and in two cases which have occurred in recent years corporations having both preferred and common stock have levied assessments equally on both classes of stock. In at least one of the cases the nature and extent of the preference granted to the preferred stock was "to receive from the surplus profits arising from the business of the corporation cumulative dividends as declared to the extent of 6% per annum *and no more* and on liquidation or dissolution of the company to receive the *par value* of the stock." In these circumstances, it seems that assessments paid by these preferred stockholders can never be repaid to them, and notwithstanding this it seems that, unless the articles specify that the preferred stock is non-assessable, the directors, if so inclined, could continue levying assessments on the preferred stockholders indefinitely, provided the company required funds to pay expenses, conduct its business or pay debts.

It would appear that when the amendment was made providing for the issue of preferred stock proper provision for safeguarding the interests of preferred stockholders in respect of assessments was not made. It would almost seem that as a matter of equity the preferred stockholders would be taken care of in court proceedings; but in the absence of case law the subject seems very debatable.

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### *Treatment of Assessments on Books of Corporations*

When an assessment is levied an entry should be made on the books charging "Assessment No. — Collectible" and crediting "Assessment No. — Account." If the assessment is paid in full the cash will be credited to the "Assessment Collectible" account and if any stock is delinquent and is bid in by the corporation, it would seem that under the law the amount at which the company bid in the stock, *vis.*, the amount of the assessment and costs, should be credited to "Assessment Collectible" account for the amount of the assessment and to "Assessment Expenses" for the balance. Questions then arise—first, as to the treatment of the credit balance on assessment account; and second, as to the treatment of the stock bought in by the company.

### *Treatment of Credit Balance on Assessment Account*

It is difficult to see why in all cases this could not, if desired, be credited to surplus account and if the assessment has been levied to make good operating losses it would naturally be credited to that account. If, however, the assessment has been levied to provide for construction or development expenditure, it could be shown either as a separate item in the balance sheet immediately following capital stock, or it might be transferred to an account called "Reserve for Development" or "Reserve for Working Capital" and thus have the surplus account show only earnings from operations.

### *Treatment of Stock Bought in by Company*

Inasmuch as the records show that the company purchased the stock at the amount of the assessment and costs, it would seem that the proper course would be to carry the stock at this value. If, however, it is desired to carry the stock at its par value, the difference between the par value and the cost should be credited to a capital surplus account or applied in reduction of goodwill or rights, franchises, etc., if such assets are carried on the books of the corporation. If carried at par it should preferably be shown as a deduction from the stock issued, and if shown as an asset it should not be included under the heading "Current Assets."

No objection could probably be taken to writing up the value of the stock to a reasonable figure at a later date, but it would

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not be proper to include such increase in the profits of the year nor even as an addition to surplus available for dividends. If, however, the stock is sold at a sum in excess of its book value there is no reason why the profit could not be credited to surplus account.

There seem to be advantages in carrying the stock at cost:

- (a) It would show in the clearest manner the actual transactions which had occurred;
- (b) It would not be shown as a deduction from the stock issued, which must frequently be an advantage on account of the desirability of showing the issued capital stock as being not less than the bonded indebtedness;
- (c) If the company subsequently sells such stock it could credit surplus with any amount received in excess of cost, whereas if the stock were carried at par and sold at a price below par (which might reasonably be expected if some stockholders did not care to pay not more than 10% of the par value) the difference would have to be charged to surplus, or to some account such as "Discount on Stock," or to capital surplus if that account was credited with the difference between the cost and the par value.

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## EDITORIAL

### Opportunity or Menace—Which?

The platform of one of our great political parties in the recent presidential election declared for the establishment of a commission to report both to the President and to either branch of Congress as to the costs of production, efficiency of labor, capitalization, industrial organization and the general competitive position in this country and abroad of industries seeking protection from Congress. This commission, if established, was to have plenary power to elicit information, *and for this purpose prescribe a uniform system of accounting* for the great protected industries. The same platform demanded a "strong national regulation of interstate corporations," and declared that the corporation is an essential part of modern business, and that the "concentration" of modern business, in some degree, is both inevitable and necessary for national and international business efficiency. "But the existing concentration of vast wealth under a corporate system, unguarded and uncontrolled by the nation, has placed in the hands of a few men, enormous, secret, irresponsible power over the daily life of the citizen—a power insufferable in a free government, and certain of abuse."

*Editorial*

To the tired minds of many who have followed the writings of "social justice muckrakers" in the past five or ten years, these platform declarations possibly mean nothing more than another blast of the political demagogic trumpet. Not many months ago a veteran member of the lower house of Congress pulled out of his wallet a clipping from a newspaper in which the editor identified the ruin of the country with the success of a personage unnamed, but limned in the darkest colors. The statesman passed the bit of paper to the young lady next him at table.

"Can you guess who the subject of this diatribe may be?" he asked.

"Why, \* \* \* of course," replied the lady, naming one of the recent presidential candidates. "Who else could it be?"

"But observe," said the statesman, "the date of that clipping. \* \* \* was only a small boy five years old then. The person actually meant is Abraham Lincoln."

The result of the recent election was not favorable to the party from whose platform we have quoted, but it is nevertheless conceded by the majority of thinking men that the great concentration of wealth incident to the industrial and commercial development of our country in the past twenty years has raised the serious question of the possible evils attendant thereto. The accounting profession, which has reached its manhood in America during this same eventful period, has a vast stake in the question and in all the political and other remedies or palliatives that may be offered to cure or curb these possible evils. No profession or class of men comes more intimately in touch with the machinery and the personnel of modern industry and the various institutions of human activity comprising modern commerce. It is, therefore, of paramount importance, not only to the American accountant himself but also to his countrymen, that his attitude towards this question be as correct as is possible in the light of the broadest judgment, based on the wide experience which it is the privilege of his profession to enjoy. It is true that the attitude of the public accountant in respect to corporations and other examples of the "concentration" referred to is, or should be, always an independent one. It has been said that "all he can do is to tell what the facts are." But a fact can often be truthfully stated in various ways, and, owing to the deficiencies of

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language, different meanings may be taken from the same fact variously stated, so that it becomes important that the underlying sentiment of our "statements" should have a correct foundation, in touch with the times, while rigidly maintaining the best traditions of the profession. By our underlying attitude we must determine whether the present and prospective situation presents an opportunity or a menace.

There is but little question that the next few years will see a spread of the popular idea of governmental regulation of industry and commerce, and the enactment of laws of regulation probably providing for a federal commission which will maintain permanent active supervision over industrial corporations engaged in interstate commerce, or such of them as are of public importance, and doing for them what is now done for the railroads by the Interstate Commerce Commission. It is useless to kick against the pricks, but it is still more important that our frame of mind should be such that we do not regard this evolution of governmental functions in an unnecessarily antagonistic light.

The most interesting evidence brought out before the Pujo Committee has been given since its inquiries have converged on the broad and fundamental problem of the meaning and possible outcome of the movement of concentration in finance. Two facts which may come as a surprise to many of us have been elicited. First, that even those great financiers whom the public is prone to identify with the "Money Trust" are not at all satisfied that the existing order of things is such as to warrant their own entire approval; second, their grounds for disapprobation of the trend of banking and corporation affairs differ except that there is a rather general agreement that the concentration movement, if not averted in some way (as yet undetermined), has grave possibilities of peril. Above all, however, there is the outstanding criticism which comes from these men themselves of the systems or institutions with which they have been or are even now identified. The testimony of Mr. Schiff was particularly of interest in view of his affiliations with the fortunes of the Union Pacific Railroad during Mr. Harriman's regime—a period which comprised the Northern Securities holding company episode; the acquiring by the Union Pacific Railroad itself of the Southern Pacific and other railroad stocks on a tremendous scale; and

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the generally accepted fact of the partitioning of New York's banking institutions into two great groups of influence.

The questioning of Mr. Schiff ran partially as follows:

Q. You see no objection, do you, to one bank owning another through stock ownership?

A. Yes, I do see objection to it.

Q. Does that objection apply even if the ownership is through the medium of a third company, a security company, that is owned by the bank?

A. As a rule, I am opposed to all holding companies because of concentrations, which under our laws and tendencies should not exist.

Q. Do you believe in concentration?

A. I do not believe in concentration through companies nor through holding companies. I believe in concentration through individuals.

Again, Mr. George M. Reynolds of the Continental National Bank of Chicago, who has been largely quoted on this question, and who is stated to have said that "the money power now lies in the hands of a dozen men and I plead guilty to being one of the dozen," testified before the Pujo Committee as follows:

"I am inclined to think that excess of power in a limited number of men always is a menace."

And further:

"The concentration as far as it has gone does constitute a menace, but I would like to add that I do not intend to criticise any individuals."

These witnesses and their frank testimony regarding the so-called "Money Trust" with which they are popularly credited as being associated, followed Mr. George F. Baker. No man, with the possible exception of Mr. Morgan himself, has been more closely associated than has Mr. Baker with the growth of the remarkable banking and credit institution affiliations in New York. This is what Mr. Baker says:

Q. I suppose you would see no harm in having the control of credit, as represented by the control of banks and trust companies, still further concentrated? Do you think this would be dangerous?

A. I think it has gone about far enough.

Q. Do you think it would be dangerous to go further?

A. It might not be dangerous, but still it has gone about far enough. In good hands, I do not say that it would do any harm. If it got into bad hands it would be very bad.

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This testimony is interesting in comparison with that of Mr. Morgan, who, though to an extent defending concentration, admitted that reasonable competition was best in banking affairs; that "one man control" of any great institution was unwise; and further declared in a somewhat flippant manner that bank consolidation, in New York has probably now gone far enough. The conclusion which must be drawn from this very authoritative evidence is that not only is the present situation unsatisfactory, but that under ordinarily probable circumstances it might become dangerous. However, as to the remedy or palliative to cure or avoid this situation all of the witnesses seemed to be as much in the dark as anyone. And that is the whole problem. Discussion has only really commenced. Within the next few weeks the report of the House Banking and Currency Committee on the entire Pujo investigation will be presented to the retiring Congress. It is to be hoped that this report will contain an intelligent and statesman-like resumé of the inquiry as a basis for properly opening the general debate. Time is necessary for proper consideration of the problems presented, and no doubt none will listen more eagerly and willingly than the public accountant to definite propositions in place of what have so far been vague suggestions.

In the meantime the public accountant should keep an open mind, he should be in sympathy with all efforts towards popular progress, and, if these efforts appear to be along mistaken lines, his training and experience should prompt him to jump into the breach with the spirit of help, advice and sympathetic assistance rather than to stand aloof and criticise or grumble. By assuming the former attitude the accountant can make the present situation a real opportunity for his profession; while the latter will surely bring forward the menace of assistance to popular causes from minds possibly less experienced in the desired direction, but at any rate from their attitude more intelligent in promoting their own and the general interests eventually.

A prominent member of the accounting profession some years ago, in comparing corporate management with government control, said: "The men entrusted with the management of the corporations are better fitted to administer the affairs of such corporations and to exercise judgment in matters concerning

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both the investor and the public which takes their product or utilizes their franchises, than are those men who hold public office qualified to fill even their own positions, much less to undertake administrative control over corporations." Let us admit sympathy with this statement at the time it was made, and even since. Nevertheless, in spite of the instance of the very unsatisfactory correspondence which passed between numerous prominent firms of accountants and the Attorney General in July, 1909, relative to the Corporation Tax Law, we cannot afford to drift and hope. At the present moment there is in session at Washington the first annual convention of the United States Chamber of Commerce, the avowed purpose of which body is to act in an advisory capacity to the United States Congress. This is the first time in the history of the United States that an effort has been made to co-ordinate the manifold economic and commercial interests of the country, and to submit the deliberations of such a body to the National legislature for its use in considering questions relating to Trade and Commerce. So far as we are informed, this gathering at Washington includes no representation of the accounting profession. In the present British Parliament there are four Chartered Accountants whose ability and general effectiveness as legislators compare with the best of that body. The plan for a United States Chamber of Commerce to perform the functions outlined was first advanced by Pelatiah Webster, a signer of the Declaration of Independence, one hundred and thirty-six years ago. Webster then said in effect:

"Such a congress of business men, acting in an advisory capacity to Congress and attending its sessions, would be of the greatest benefit to the nation at large."

He further prayed that such a body be organized and recognized by the national legislature at that time.

Is it not well that we should consider that the time has passed for mere criticism of public officialdom and for comparisons of corporate management with government control? The conditions are upon us; the theories are spent. Are we as a profession friendly or unfriendly to the apparent trend of events? Is our voice to be heard in the councils, and in what strain? Is the situation to become for us an opportunity or a menace?

## Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

### PROBLEM NO. 14 (DEMONSTRATION)

The Hampton Circle Swing Company was organized in New York on April 1, 1912, with an authorized capital stock of \$500,000, divided into 5,000 shares of the par value of \$100 each. The certificate of incorporation was filed April 5th.

At a meeting of the directors held on April 6th, there was acquired from W. J. Hampton at a valuation of \$500,000, all his right, title and interest in various patents held by him on the Hampton Circle Swings.

In order to raise funds with which to exploit the invention Mr. Hampton donated to the company 2,499 shares of stock. Of this 2,250 shares were sold from time to time at an average price of 90, and 225 shares were used in giving a bonus of 10% in stock.

The parts necessary to erect and equip three swings were purchased from the Danielson Iron Company. The cost was \$73,247.92, of which \$50,000 was paid in cash. The labor incident to erection was paid for in cash and amounted to \$45,386.58. One swing was installed at Coney Island at a cost of \$39,544.83; one at Atlantic City at a cost of \$41,275.17; and one at Fort George at a cost of \$37,814.50. The privileges cost, collectively, \$12,000. The net income from the operation of the swings for the season was: Coney Island, \$12,273.85 (sold before Labor Day for \$50,000); Atlantic City, \$2,863.15 (installation not completed until after July 4th); Fort George, \$6,743.35. The salaries and expenses of the company from April 1 to September 30, 1912, were \$18,787.59. The balance on account was paid to the Danielson Iron Company and \$2,000 was paid for a privilege at Ocean City for the season of 1913.

Prepare:

- (a) Journal entries opening the books of The Hampton Circle Swing Company and covering subsequent transactions.
- (b) Balance sheet, September 30, 1912.

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SOLUTION TO PROBLEM No. 14

It is probable that circle swings are sufficiently familiar to the average reader to require no description. They have sprung into existence and attained popularity within the past fifteen years. They are now an important feature of most modern amusement parks.

This problem is taken from a company which was organized by the man who it is understood was the inventor of the circle swing and is largely based on facts. It illustrates the ingenuity of an inventor who was an organizer and man of business ability as well as a mechanical genius.

With a sufficiency of patents and no funds, this man, who for our purposes may be called "Hampton," set about to organize a corporation and acquire the entire capital stock thereof in exchange for his patents. The details of organization, such as the paying in of the small amount of cash required and the matter of organization expense may be passed over since such points have been fully discussed in previous problems and the purpose of the present problem is to bring out other points.

With the donation by Hampton of 2,499 shares of stock we are brought face to face with the first debatable point. Presumably no one will dispute the fact that the stock, from the standpoint of the company, becomes treasury stock, since it complies with the usual interpretation of the term which holds that treasury stock is such stock as has been once issued for value and subsequently acquired. Parenthetically it may be noted that Hampton while having provided stock which may be sold at whatever price it will bring, or if desirable, given away, has not parted with the controlling interest in the corporation. It is also apparent that his object in donating the stock was to provide what may be rather loosely termed "working capital."

On the question of what account title or interpretation shall be given to the credit which arises when treasury stock is debited, authors, authorities and novices differ. It has been variously referred to as "stock donation account," "treasury stock donated," "treasury stock suspense," "working capital," "capital surplus suspense," "surplus from donated stock," etc. A consideration of what it is rather than what it is called will doubtless be of some interest.

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The capital stock in the amount of \$500,000 was originally issued for patents. Were the patents worth \$500,000? Future operations of plants and income derived therefrom only will answer such a question. If in the judgment of the directors, this being a New York corporation, such was the value, their judgment in the absence of fraud would be conclusive. If it is conceded that \$500,000 was the value of the patents, any subsequent donation of stock would affect the surplus to the extent of the value of the stock. The question of this value then becomes the second question to be settled.

Any attempt to fix or estimate the value of the donated treasury stock would encounter ridicule. Obviously it is worth what it will bring upon sale. It is therefore apparent that some temporary disposition must be made of the credit if an account is to be set up for the treasury stock. Of the titles mentioned all are available except "surplus from donated stock." It should in the opinion of the author be pointed out that this is not yet surplus. It is merely a bookkeeping account set up as an expedient for holding the amount in suspense until the exact amount of the surplus arising from the donation is determined. For this purpose, "stock donation account" perhaps serves as well as any other.

In the problem under discussion, when the donated stock is received, treasury stock may be debited in the amount of \$249,900 and "stock donation account" credited. When the 2,250 shares are sold at 90, and 225 shares given away as a bonus, treasury stock should be credited in the amount of \$247,500, and cash, \$202,500, discount on stock, \$22,500, and stock bonus, \$22,500, respectively, debited. The accounts for discount and stock bonus might then, if it were desired to close the books, or set up a comprehensive balance sheet, be closed out to the stock donation account, the balance of which (\$202,500), after bringing down an amount corresponding to the inventory of treasury stock (\$2,400), could be closed out to capital surplus or to profit and loss surplus. The former would not be available for dividends while the latter would be. So far as the author has been able to ascertain after energetic research, there is no legal restriction upon treating such an item as profit and loss surplus. So to treat it, however, and pay it out as cash dividends would defeat the purpose of the donation. To its

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distribution as stock dividends there could apparently be no objection.

Up to this point the question at issue has been presented from one point of view—that point of view being taken by those who would contend that the patents could be consistently valued at \$500,000. With a view to full discussion, it should be pointed out that those who oppose this view hold that the donation of the stock is in itself evidence that the assets acquired should not be valued at the par value of the capital stock issued for them. The treatment of the accounts in this case would be the same as previously presented except that the amount previously credited ultimately to capital surplus or profit and loss surplus would be credited to patents, thereby reducing the book value of the asset. This treatment it seems cannot be consistently applied if the directors hold to the contrary through their right to fix the value, but such procedure would undoubtedly be conservative.

Still another theory concerning the matter holds that the donation of stock is equivalent to discounting the capital stock and such theorists would debit discount on stock and credit patents in the amount of the donation. One of the earlier legal decisions in the matter holds such a transaction to be evidence of discount, or issue below par; but the courts have latterly held the contrary. If such an entry as was above noted should be made it is evident that treasury stock would not appear on the books, but that sales of the stock would be debited to cash and credited to discount on stock. It is presumed that the balance of the discount account would be written off against profits over a period of years.

The journal entries required by the problem are as follows:

Patents .....	\$500,000.00
To capital stock outstanding .....	\$500,000.00
Treasury stock .....	249,900.00
To stock donation account .....	249,900.00
Cash .....	202,500.00
Discount on stock .....	22,500.00
Stock bonus .....	22,500.00
To treasury stock .....	247,500.00
Stock donation account .....	247,500.00
To discount on stock .....	22,500.00
Stock bonus .....	22,500.00
Capital surplus .....	202,500.00

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Cost of swings .....	118,634.50	
To accounts payable .....	73,247.92	
Cash .....	45,386.58	
Accounts payable .....	50,000.00	
To cash .....	50,000.00	
Privileges (1912) .....	12,000.00	
To cash .....	12,000.00	
Cash .....	21,880.35	
To income from swings .....	21,880.35	
Coney Island .....	\$12,273.85	
Atlantic City .....	2,863.15	
Fort George .....	6,743.35	
	<u>\$21,880.35</u>	
Cash .....	50,000.00	
To cost of swings .....	39,544.83	
Profit and loss .....	10,455.17	
Salaries and expenses .....	18,787.59	
To cash .....	18,787.59	
Accounts payable .....	23,247.92	
To cash .....	23,247.92	
Privileges (1913) .....	2,000.00	
To cash .....	2,000.00	
Profit and loss .....	30,787.59	
To privileges (1912) .....	12,000.00	
Salaries and expenses .....	18,787.59	
Income from swings .....	21,880.35	
To profit and loss .....	21,880.35	
Profit and loss .....	1,547.93	
To profit and loss surplus .....	1,547.93	

THE HAMPTON CIRCLE SWING CO.

BALANCE SHEET—SEPTEMBER 30, 1912

<i>Assets</i>	<i>Liabilities and Capital</i>
Equipment (cost) .....	Capital stock outstanding .....
\$ 79,089.67	\$500,000.00
Patents .....	Stock donation account .....
500,000.00	2,400.00
Treasury stock .....	Capital surplus .....
2,400.00	202,500.00
Cash .....	Profit and loss surplus .....
122,958.26	1,547.93
Privileges (1913) .....	
2,000.00	
Total assets .....	Total liabilities and capital .....
\$706,447.93	\$706,447.93

*Department of Practical Accounting*

PROBLEM NO. 14-A (PRACTICE)

The Roller-Coaster Company was incorporated January 1, 1912, under the laws of the state of New York, with an authorized capital stock of \$750,000, divided into 5,000 shares of preferred and 2,500 shares of common stock of the par value of \$100 each.

The stock was all issued to Frederick Johnson for patents. Johnson donated the common stock for working capital. Ninety per cent of it was sold at an average price of 85.

Three outfits were erected as follows: Coney Island, cost \$60,827.92; Midland Beach, cost \$61,382.43; Glen Island, cost \$59,783.47. The cost is composed of material obtained from sundry creditors in the amount of \$120,421.78 (of which \$97,421.78 was paid in cash), and labor of installation, \$61,572.04.

Privileges cost \$8,750. The net income from operation for the season was: Coney Island, \$8,762.50; Midland Beach, \$5,327.90; Glen Island, \$2,275.85. A privilege at Old Orchard for the season of 1913 was purchased for \$500. The salaries and expenses of the company from January 1st to September 30th were \$22,836.79.

Prepare:

- (a) Journal entries opening the books and covering subsequent transactions.
- (b) Balance sheet, September 30, 1912.

## Corporation Tax Returns\*

I appear before your committee for the purpose of offering for its consideration the advisability, in levying any corporation tax, of allowing corporations to make their annual returns based on their fiscal year, irrespective of whether that fiscal year may happen to be December 31, or not. The main consideration in behalf of this policy is the fact that the Government will not suffer any diminution of revenue because of it, while, on the other hand, it will be of great advantage to the business community.

A large number of corporations can close their year quite readily on December 31, but a very great number cannot do so without much inconvenience and expense. The main reason for this is that the taking of inventory is a matter of the utmost importance in ascertaining the profits. All conservative companies try to take their annual inventories at the time when their stock in process of manufacture, or their raw material stock, is at the lowest amount, the reason for this being that a more accurate inventory can then be taken and the possibility of errors be avoided. In addition, many corporations that have to take inventories in the open air cannot make their employees do this work in the severe weather and have to wait until a milder season of the year; other corporations are in their very busiest period at Christmas and cannot give the time to take the inventory without suffering severe financial loss. A factory usually has to shut down in order to take inventory. It, therefore, aims to do this at the slackest time of the year. It is suggested that the Government would be less liable to loss through errors by the corporations if each corporation were allowed to close its year and take its inventory at the time of year when its stock is lowest, and when for other reasons it has most time available for closing its business.

The above points can be illustrated by a few typical industries.

In the glass industry of this country, which is of enormous extent, it is necessary because of summer heat to close down the factories during the two hottest months of the year. Almost every one of these companies takes advantage of this opportunity to make up its inventory and close its business. Such corporations suffer loss and inconvenience by taking an inventory on December 31. I believe many of them make their returns to the Government on an estimated inventory at December 31. It would, of course, be much better to have their year close on the date of the actual inventory.

In the case of many blast furnaces there are enormous stocks of iron ore on hand in winter time. This is especially the case with blast furnaces situated on the Great Lakes, as they get their heavy supplies

\* Evidence offered by Arthur Young, C.P.A., Chairman of the Committee on Federal Legislation, and President of the Illinois Society of Certified Public Accountants, at a hearing before the Ways and Means Committee of the House of Representatives, January 31, 1918, on the administrative features relative to the revision of the present Tariff Act.

### *Corporation Tax Returns*

just before the close of navigation. The conservative corporations in this line of business prefer to take their inventories in spring, or summertime, when the stock of iron ore is practically used up and when the estimates of amounts of iron ore on hand can be readily and accurately made. When many thousands of tons of iron ore are stacked up in the yards it is almost impossible by measurement, owing to the difference in weight, to ascertain the exact value of the iron ore, no matter how much this may be helped by chemical sampling. It, therefore, makes for accuracy if such concerns can take their inventories when their iron ore is at the lowest.

Almost every department store in the country has its busiest time at the end of the year. These stores have just finished their Christmas trade and are preparing for their January sales, which open on the second of January. The practical result is that most of them take their inventory about February 1, just after the January sales are finished and before the spring trade begins. It is in many cases absolutely impossible for them to take an inventory on the first of January, therefore, I presume, in making their returns to the Government most of them must use estimated inventories. In this case it would also make for accuracy, and certainly for the convenience of business, if such corporations were allowed to choose their annual closing period themselves.

Similar consideration apply to the elevator and grain companies, especially in the northwest. They are in the middle of their busy season on December 31. Almost all of them find it advisable to wait until later in the year before taking stock and closing their business.

In the automobile business, early winter is the busiest time for manufacturers. On December 31 their works are filled with half manufactured goods and half completed machines. If they are to ascertain their profits correctly, it is almost necessary for them to wait, as most of them do, either until summer or autumn when they have few automobiles in process and can make up their inventory largely from raw material, the prices of which can be readily ascertained, and from fully manufactured machines. Many of them have in the busy season millions of dollars worth of half manufactured goods. If this has to be estimated for inventory purposes at that time wide errors are apt to arise.

Similar remarks apply to most of the agricultural implement makers of the country. Winter and early spring are their busiest times for manufacture, and it is often a hardship if they have to shut down their works and take an inventory on December 31.

In the lumber industry, it is in many cases impossible to take an inventory in the depth of winter. The weather in many instances makes this physically impossible. The result is that, according to the different climate in various parts of the country, lumber companies take their inventories at varying seasons, some of them in summer and others later in the year. The arbitrary closing on December 31 of works in this industry also means hardship in many parts of the country.

As regards railroads, there is a curious anomaly. The present cor-

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poration tax compels railroads to close their year December 31, whereas the older authority of the Interstate Commerce Commission has insisted upon June 30 being the time of closing for railroads. Much opposition arose to the ruling of the Interstate Commerce Commission on this point, but in the past few years the commission has insisted upon railroads closing uniformly on June 30, which practice is now universal among railroads.

Express companies are in the same class as railroads. It would, therefore, appear that these two industries have to conform to the requirements of two different governmental bodies. So far as I have learned, no final decision has as yet been given as to which of them is to be obeyed. It would appear advisable to have uniformity in this respect.

The above instances are given merely as illustrations of a few of the classes of activities that are hampered by an arbitrary closing on December 31. In favor of allowing corporations, under proper regulation, to close their years at the period that suits them individually, it should be urged that thereby corporations will be saved much annoyance and large sums of money, and that more accurate profits will be arrived at when the true inventories can be taken than when annual accounts are made upon estimated inventories of December 31.

The corporation tax is collected by the Government at a less expense than any other of form of taxation. It would seem that, in levying this tax, the Government should not make it a hardship on the people that pay it, but should take every reasonable means to have it paid with the least possible inconvenience and expense to those who furnish this revenue for the Government.

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### COPORATION TAX RETURNS\*

The American Association of Public Accountants is the national organization of accountants in all parts of the country, and represents a large majority of the practicing profession. Our sole object in requesting a hearing before this committee is that we may be able to render such assistance as from our wide and practical experience we feel that we are qualified to render. Our experience covers governmental as well as commercial activity. While it is true that many of our clients are corporations, yet it is proper to state that during recent years we have been retained by federal, state and municipal bodies, as well as by civic and other quasi-public organizations. Our attention, therefore, is drawn to the subject of taxation by those who levy as well as by those who pay.

For this reason our attitude is strictly impartial. As a body we are not concerned with the principle of this tax nor of any other, but inasmuch as the making of returns for the purposes of taxation falls largely upon the shoulders of public accountants, and because we stand

\* Evidence presented on the administrative features of the Payne-Aldrich tariff act by Robert H. Montgomery, President of the American Association of Public Accountants, at a hearing before the Ways and Means Committee of the House of Representatives, January 31, 1918.

### *Corporation Tax Returns*

in a fiduciary relation to a large number of the taxpayers, we believe that our opinion is of value. I maintain that wherever possible every concession should be made to the taxpayer so long as such concessions do not interfere with the purpose of the taxing law; and for this reason I urge that in all legislation affecting finance and accounts the professional accountants of the country may have a chance to express their opinions and to advise legislators as to the practical side of the legislation which they have before them. Furthermore, it will be apparent to any one that the law which is most easily understood and most easily applied will bring the most satisfactory results to the government.

In the case of the excise tax on corporations the members of your committee are fully aware that the provisions of the law were found unworkable and the Treasury Department's rulings have been at wide variance with the letter of the law. This divergence has been rendered necessary, as otherwise the law could not have been applied.

It might be well to consider the desirability of authorizing the Treasury Department to formulate regulations hereafter, as it has actually in the past, except that in such case the law itself need not go into details as to how net income is to be determined. As a matter of fact it is almost impossible to so define net income or net profits that all classes of enterprises will be subject thereto. For instance mining companies and trading companies have different problems to meet and if the Treasury Department were empowered to issue instructions modified to meet varying conditions there would not be so much dissatisfaction with the administration of the law as now exists.

For the purpose of record and in order that the matter will not escape attention when, and if, the present tariff act is amended, I desire to discuss certain other objectionable features of the existing law. I call attention first to the provisions of the law which provide that the tax shall be charged upon the entire net income of corporations, and that net income is to be ascertained by deducting from the gross amount of the income from all sources—expenses actually paid, losses actually sustained, interest actually paid, in each case within a year.

The words "actually paid" convey but one meaning to those who are versed in financial and commercial affairs and that is the actual disbursement of money, either currency or bankable funds. Naturally those who wish to comply with the law have a just grievance if they are informed that these words have one meaning when they appear in a federal statute and another meaning at all other times. We maintain that the phraseology should have been:

"Expenses actually incurred" because the *payments* are not necessarily, nor in fact usually, all made in the period in which the expenses are incurred;

"Losses actually ascertained" because losses may accrue and the amount not be ascertained until a subsequent period;

"Interest actually accrued" because interest is not paid until the end of the period during which it accrues, and the interest accrued is the proper charge against income.

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The act is confusing also in that it refers at one time to net income received, in another to gross income without the addition of the word received, and in another paragraph to gross income received. This complication of terms naturally leads to endless confusion. Our suggestion is that there are two methods which may be adopted for taxation purposes; either

To tax the difference between actual cash receipts on revenue account and actual cash payments on revenue account, which difference will seldom, if ever, represent the profits of a manufacturing concern, or

To tax profits made up in the ordinary commercial way, namely, to ascertain the gross income earned whether received or not, and to deduct therefrom:

Expenses actually incurred during the year whether paid or not;

Losses actually ascertained and written off during the year whenever incurred;

Interest accrued during the year whether paid or not;

A reasonable allowance for depreciation of property, and

Taxes.

We have found that the corporations as a whole look upon the tax as an equitable one except as to the unnecessary annoyance and expense hereinbefore indicated, and with the further exception that it works a hardship in a few cases where profits are difficult to determine. For instance, a corporation which makes a large apparent profit one year may find during the succeeding year that the previous year's profits were largely overestimated and that the adjustment thereof results in a loss sufficiently large to show a net loss for the year. The government has received its one per cent upon the profit, subsequently discovered to be erroneous, but grants no relief, although an honest mistake has been made in the payment.

This condition is not extraordinary; the values placed upon the assets appearing in a balance sheet are necessarily estimates, and are based upon conditions which change rapidly and for many different reasons. Corporations engaged in businesses affected by the tariff may value their inventories at a market price on 31st December, which proves to be largely in excess of the actual price which can be realized in April. If a tax has been paid in good faith, based upon the best available information, to 31st December, there should be some adjustment possible when the inventory is reduced to cash.

The solution of this inequitable feature of the present law which is found in the British Income Tax practice, and which works no hardship upon the government, is to base the tax upon the average result of the last three years' operations immediately preceding the taxing date. In the case of nearly all corporations the income to the government would be the same as it is now, but as to a few corporations the tax would be somewhat less. It is urged, however, that the trifling loss to the government would be more than compensated by the universal approval which would be extended to that taxing power, which, through a provision

### *Corporation Tax Returns*

such as has been suggested, indicates to those paying the tax that it desires to deal fairly with them.

In view of the fact that an income tax has been levied in England for more than fifty years, it is obvious that valuable experience has been gained, of which we should take full advantage. We have among our members, accountants who have had wide experience with the practical workings of the British laws, and their advice and suggestions are at your disposal.

In conclusion, I suggest that, wherever the machinery of federal administration can co-ordinate with honest and efficient business methods, simple justice requires that the laws specifying the machinery be skilfully drawn.

I would state, as I did when speaking before this committee on 10th January, 1912, that the American Association of Public Accountants from its close connection with all classes of business is in a position to offer indispensable services and that we shall always be ready and glad to render every assistance in our power to further the preparation of efficient legislation.

We do not desire to appear as destructive critics, but as honest collaborators with those to whom the making of the laws is entrusted.

## Book Department

**AMERICAN MINE ACCOUNTING.** By W. H. CHARLTON, P.A.  
*McGraw-Hill Book Company, 1913.* 367 + viii pages. \$5.00.

In American Mine Accounting the author has not presented his own ideas as to what should constitute the various accounting systems considered, but has set forth in detail, six systems in actual operation in different types of mining. These include a complete accounting system for the mining of iron ore, the mining and milling of native copper, the mining of copper ore, the smelting of copper ore, the mining of coal and the making of coke, and the mining and milling of gold ore. The systems presented are those in use in well-known mines, and the forms cover all those used in the respective systems. In the sixth and last chapter of the book, the author gives various methods for recording the engineering and geological data essential to the accounting department of a mining company.

This book is one of the first in its field and it will undoubtedly be of much value to those interested in the accounting systems of mining concerns.

**COST ACCOUNTS.** By L. WHITTEN HAWKINS, C.A. *Gee & Company, London, 1912.* Third Edition, 120 pages. 5s.

As stated by the author in the preface of this edition, he has attempted to explain in general terms the principles involved in the ascertainment of manufacturing costs and to make clear the operation of these principles by means of examples.

Throughout the entire book the discussion is confined to the principles which underly all cost keeping, and no attempt is made to treat these principles in their direct application to any specific business or undertaking. The author has laid particular stress on the desirability of making the cost books intermesh with the general books of accounts and has shown very clearly the methods that should be used to bring about this co-ordination.

In the chart facing page 50, Mr. Hawkins has shown most clearly the linking of the cost and general books and has traced the recording of the data through both systems. The forms given in the back of the book make the technical points in the text clear even to the layman.

This book should prove of special value to those who desire an understanding of the principles and functions of a modern cost system but have neither the time nor the inclination to study one of the larger and more technical texts. The book is written from the English standpoint, but will nevertheless be appreciated by American readers as a clear exposition of the elementary principles of cost-finding.

### *Announcements*

**GENERAL INFORMATION ON THE GEORGIA C. P. A. EXAMINATIONS AND TYPICAL QUESTIONS. EDITED BY JOEL HUNTER, C. P. A., Atlanta. \$1.00.**

Mr. Joel Hunter, who is a member of the State Board of Accountancy of Georgia and a prominent member of the profession in the South, has compiled an excellent little treatise on the examinations of the Georgia board of accountancy. At the outset he gives a considerable amount of general information in regard to the law itself and quotes the text of the act. A chapter is devoted to the rules of the accountancy board for the examination of candidates. Copies of the application blanks and evidence of qualification and certificate of moral character are given. The author then discusses the scope of the examination in the several subjects and recommends certain books for the guidance of students. He also reproduces questions selected from the various examinations as an indication to students of the general requirements.

The book will be found of great value to students and will be of interest to accountants generally as showing the condition of accountancy in Georgia.

## **Announcements**

### **Washington State Board of Accountancy**

At the December examinations held by the Washington State Board of Accountancy, W. L. Cramer, Arthur M. Flynn and H. R. George were granted C. P. A. certificates.

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### **Illinois State Board of Accountancy**

Marquis Eaton, of the firm of Defrees, Buckingham, Ritter and Eaton, has been appointed to fill the vacancy in the Illinois Board of Examiners caused by the expiration of the term of Silas H. Strawn.

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Mr. George E. Frazer, formerly of the faculty of the University of Wisconsin, has resigned his position as accountant with Wisconsin State Board of Public Affairs, to accept a position as Professor of Public Accounting and University Comptroller at the University of Illinois.

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W. P. Hilton and A. Lee Rawlings, certified public accountants (Virginia), announce the formation of a copartnership under the firm name of Hilton, Rawlings and Company, with offices in the Law Building, Norfolk, Va.

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Flynn, Cramer and Linz, C.P.A. (Washington), announce that they have opened offices in the Hoge Building, Seattle, Wash.

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It is announced that the Standard Audit Company (J. A. McDonald, C.P.A., president) will hereafter be known as John A. McDonald and Company, certified public accountants, with offices as before in the Candler Building, Atlanta, Ga.

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Edwards, Ronald & Company, chartered accountants of Canada, announce that B. F. Griggs, who has been associated with the Winnipeg office of the firm, has been admitted as a partner.

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## Accounting as a Basis for and a Measure of Efficiency in Business\*

BY CARL H. NAU, C.P.A.

Our modern industrial civilization owes its existence chiefly to two great types of inventions:

1. The invention of the steam engine and the application of steam power to the means of locomotion, making possible the evolution of that wonderful, modern highway of commerce, the railroad.

2. The invention of labor-saving agricultural machinery, of which the McCormick reaper can be taken as a type, making possible the production of our food supply by a smaller proportion of our population than formerly was possible.

As progressively a larger number of our population were released from the necessity of producing their own subsistence, and as the development of transportation facilities permitted the food supply to be carried from those by whom it was produced, to those who were thus permitted to direct their activities toward the production of things other than the mere necessities of life, these latter gradually grouped themselves together for easier co-operative effort, and evolved our modern industrial center, the city. This industrial evolution has given rise to many new political and economic problems, some of them calling for a high order of intelligence and patriotism for their proper solution.

These, however, are outside the scope of the present address and attention need be called to only one of these problems, viz.,

\* An address delivered before the Cleveland Chamber of Commerce, February 18, 1913.

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that the growth and concentration of population, and the wonderful development of transportation facilities that have characterized our progress during modern times, have materially increased the keenness of competition, reducing the margin of profit to the narrowest point and thus making imperative the most careful methods in handling the details of production and distribution.

The selling price of an article which is not the subject of an absolute monopoly is largely determined by the competition of the market, and therefore, to that extent, it is beyond the control of the manufacturer. Its cost, however, is determined by an intelligent manipulation of the contributing factors and hence is largely within his control.

The elements of cost are:

1. The raw materials entering into the product in any given case.
2. The direct labor cost expended in its production.
3. The factory burden or overhead and indirect expenses.
4. The cost of disposing of the finished product or the selling expenses.

These four factors are all variable factors (some of them much more variable than others), and they largely depend upon the wisdom and intelligence with which their combination is directed; upon the limitations of the capital employed; and upon the relation of the marketable output to the time and effort employed in its production and distribution. These conditions are all more or less capable of being controlled.

In any given case each of these factors bears a certain relation to each of the others and to the whole cost, and the mere alteration in a wisely directed change in the relation of the factors to each other, frequently measures the difference between profit and loss.

When a factory is being operated at a profit, under existing costs of material, labor and administration, that profit may be greatly increased if the output of the factory can be enlarged without a proportionate swelling of the cost of administration. In other words, if the quantity of finished product be increased at the expense only of cost for additional material and productive labor, at existing rates, but without increase in the outlay for heat, light, power, taxes, insurance, interest on the capital, un-

## *Accounting as Basis for and Measure of Efficiency in Business*

productive labor, superintendence, and the other charges that enter into the cost of conducting a business, the *rate* of net profit per *unit* of output is increased, in proportion to the percentage of increase in the factory production.

This increase in output beyond the normal is, to the factory, what the "strap-hanger" is to the traction line—a source of pure net profit—"velvet," as it were—and to secure it to the maximum of capacity is the aim of the wide-awake manufacturer. To the manufacturer who is confronted by the apparent necessity of either reducing wages or advancing prices—who is in the situation colloquially expressed by the phrase "between the devil and the deep sea"—there may remain this safe "side-step" of increasing output without correspondingly increasing overhead expense.

It is, in fact, the ultimate purpose of producing this increase in output without proportionately increasing overhead expense, which has given rise to all piece-work, differential, bonus, and premium wage systems; that has inspired investment in automatic machinery, and is the moving force behind the thousand and one labor saving devices that occupy the attention of inventive genius the world over.

The manufacturer who cuts wages or piece-rates may or may not be wise, and he may or may not be fair; in any event, he lays himself open to adverse criticism and direct opposition; and so it is with the manufacturer who advances selling prices. No thoughtful person, however, can criticise the manufacturer who requires a maximum capacity output and who pays for material and labor in proportion.

Parenthetically, it may also be observed, that there is no such direct relation between day rates of wages and cost of production as is sometimes assumed in current discussion (especially in discussion upon the ever present tariff question). It is not the day rate of wage which counts, but the rate of wage per unit of product, and it is entirely possible to attain an increase in profit even through an increase in the unit rate, if such increase can be effected coincident with a change in the relation of the fixed overhead to the factory output.

What then, is the guide to this safe and profitable result? There is only one. Accurate information as to what constitutes

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maximum output, for each man, for each machine unit, and for the factory as a whole.

This knowledge can be gained only through correct measurement of the material, and equally correct measurement of the amount of labor invested in each piece of product at each stage of manufacture, and through a scientific and logical distribution of overhead expense to each "unit of product" toward which this "prime cost" investment has been made.

This proper measurement of material, labor and overhead expense constitutes the true function of a cost system, and is the only foundation upon which can be built a permanently profitable business in any competitive industry.

Such accurate knowledge, obtained only through systematic and correct accounting, lies at the base of all so-called efficiency engineering and studies in "scientific management."

That manufacturer who does not know, beyond all guess work, what his product costs—step by step and operation by operation—is in no position to decide intelligently upon selling prices, wage rates, the merits or demerits of machines which purport to cheapen his labor processes, the comparative value of his workmen as producers, the efficiency of his foremen, or, finally, to judge what ratio the normal output of his factory bears to that maximum production which, beyond a certain point, is all net profit.

Within the limits imposed by this address, an amplification and extended discussion of this proposition cannot, of course, be attempted and a mere statement of these fundamental principles will, therefore, have to suffice for present purposes.

In the absence of accurate knowledge concerning the interrelation of these factors determining cost, and their relation to selling price, and in the absence of accurate means of comparison of the results attained by experimentation and under varying methods and policies, resorted to for the purpose of controlling their combination in the interest of the largest margin of profit, the directing management of the business is, of course, entirely without rudder or compass in steering the course of the enterprise.

Mr. Harrington Emerson, whose testimony before the Interstate Commerce Commission in the railroad rate cases excited so much attention, and who has become so widely known as one

### *Accounting as Basis for and Measure of Efficiency in Business*

of the leading exponents of scientific management and as a pioneer in studies of production efficiency, makes the statement that he has visited factories in all parts of the United States, Europe and Asia, and the rarest thing he found was a system of accounting from which correct, reliable and immediate records could be obtained.

It will readily be appreciated, therefore, that intelligent economy of time and effort is the keynote of success in the operation of the daily transactions, not only of the immense corporations of the country, where even a fraction of a cent in some detail will run up to thousands of dollars in the aggregate, but also of moderate sized as well as small business enterprises.

To bring about this economy of time and effort, and thus form the basis for increased profits, it is necessary that nothing bearing upon the cost of the finished product shall be neglected; that no department shall exist at the expense of the rest of the establishment without the management being thoroughly conversant with the reason for its so existing; that there shall be a definite knowledge of the relation to each other of all of the factors of earnings and costs, and their relation to net earnings, in each department; that all overhead charges shall be included in figuring cost—in a word, it is necessary that thoroughly accurate, systematic methods shall prevail everywhere, and that no detail, however small, shall be overlooked.

The securing of these systematic time and labor saving methods in modern business has, particularly of late years, engaged the most careful and painstaking attention of business men, with the result that a number of entirely new professions have been developed. Expert accountants, systematizers, production and efficiency engineers have been called upon to devote their technical knowledge, experience and skill to placing upon a scientific and practical working basis and reducing to a matter of routine the daily problems of modern business.

How well they are succeeding is best evidenced by the general increase in present day business efficiency, by the elimination of vast amounts of waste, and especially by the fact that, from one end of the country to the other, business men, in every line of industry large and small, are employing the services of the professional accountant and expert systematizer to assist them in introducing absolute accuracy into every detail of work, and

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in placing their entire establishments upon a permanent basis for making profits by saving them.

It is a truth needing little emphasis that accuracy in the recording of the data upon which the management must base its program for the effective control of the business, is, under all circumstances, an absolute necessity in the accounting department of any business. Errors, even though small in themselves at the start, especially if they be errors in principle, grow with startling rapidity as they are carried forward and frequently result in serious loss before being discovered and remedied.

In this connection, the services of a competent public accountant who regularly inspects the books of an establishment are indispensable, for, not only will it thus be made impossible for errors of principle and of detail to pass undetected, but, in addition thereto, the auditor, by reason of his knowledge and wide experience, is frequently able to suggest ways of simplifying existing methods, and thus time, labor and money are saved and general efficiency increased.

The gain to a business of any character which makes a practice of systematic, periodical audits, is far from being limited to a review of the integrity of those serving it in a trust capacity and to the ensuring of accuracy, valuable as that is. The excellent moral effect of such a policy, both inside and outside of the establishment, is impossible to overestimate. Trusted and valuable employees are not subjected to the temptation which an unaudited accounting record always affords, and the effect upon the discipline of the organization, the favorable sentiment created among stockholders, and, where the enterprise is of a public character, its effect upon the general public, is of inestimable value. Confidence is created and maintained, desirable publicity of the most profitable kind secured, and a helpful spirit of co-operation is engendered among all those concerned in the welfare of the institution.

An excellent proof of this is seen in the rapidly spreading practice among banks throughout the country of advertising broadcast the fact that independent auditors are regularly employed to examine into and report upon every detail of their business. The investing, as well as the general public, has learned to distrust secrecy in business, and rightfully insists upon facts and figures before it extends its patronage.

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Montgomery, the author of the best American work on auditing, says: "The value of the publicity of audited accounts cannot be overestimated. In a general way all corporations are believed to be making unreasonable profits, particularly all corporations which in any way attempt to serve the public.

"For instance, in New York City, the taxicab companies have been attacked in the newspapers and one ordinance after another has been passed regulating fares, all, of course, reducing them. During the last four or five years at least two million of dollars have been lost by three or four of these companies. During this time they have not made periodical statements to their stockholders nor to the public, setting forth these losses and the reasons therefor. For some mysterious reason publicity has been shunned.

"It is about as certain as anything can be that if certified statements of operations had been secured and sent to the newspapers annually, commencing, say, four years ago, a far different state of public opinion would have resulted.

"Corporations which are secretive about their accounts, or which issue statements not certified to, have only themselves to blame if they are made the victims of hostile legislation."

In the everyday details of office routine, it very often happens that a business house will conduct its affairs along lines which, almost imperceptibly, yet very surely, have become superannuated and, therefore, wasteful in many ways. The management may be, indeed often is, wholly unaware of the fact that its methods need a thorough revision, and the result is that, instead of steadily advancing, the business will drag along year after year, barely paying expenses, or, at most, making but a small fraction of the profit that should be earned.

Then, too, it must be remembered that "the world do move." The day of personal, individualistic management is passing and an era of organized and cooperative management is at hand. The conditions of factory management have changed and the strenuous, individual type, shackled to precedent, unable to follow the trend of modern change, adheres to customs, methods and practices which have become obsolete and his concern drifts to decay and industrial death. There is an involuntary aversion toward relinquishing those former customs and methods under which success by its founders was achieved, but as Emerson ob-

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serves: "Concerns which adhere to primitive types are foredoomed to death. They rarely outlive the original founder. It is almost a miracle of succession if able individuals are found to direct them."

There is a decided difference between strenuousness and efficiency, although frequently the former is mistaken for the latter. Strenuousness means the expenditure of greatly increased effort for a correspondingly small increase in results. Efficiency means the obtaining of greatly increased results for the expenditure of a lessened effort.

Efficiency management differs from strenuous management in that it subordinates both individuals and system to broad general principles. Many managers fail to place a sufficient value upon system, and do not accord to it the importance it deserves. As a consequence, their foremen and workmen are not afforded the opportunity to be at their best and accomplish the greatest results.

Strenuousness is often an excellent quality. It enables one to set rational standards, with generally one-half the speed of extreme effort or, perhaps, a little better. But when this otherwise commendable quality is applied to certain subjects, say for instance, to the determination of rates for awarding and payment of premium wages, it can work greatly to one's detriment. It is precisely in such cases of wrong adjustment, regardless of whether or not conditions have become acute, that the skillful systematizer is able, by expert analysis, to detect the trouble and to install up-to-date methods and devices, which immediately have the effect of putting new life into all departments of the business, increasing profits and generally improving conditions from end to end. And, a very important feature of these improvements they are, almost invariably, accompanied by a material reduction in operating expenses, so that the outlay involved in the readjustment is soon repaid many times over.

The exceedingly rapid growth of many concerns is often responsible for the adoption of methods economically unsound, yet seemingly unavoidable under stress of circumstances. Such methods, perhaps intended to be temporary, gradually become part of the daily routine, resulting in definite and increasing, though by no means readily noticeable, loss.

Similar loss is frequently caused by inadequate or incomplete knowledge of the details of the cost of production and distribu-

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tion, with the result that prices are made or contracts closed with what may seem a very fair margin of profit, but which, when completed, bring the balance on the wrong side of the ledger.

Such adverse conditions and many others of more or less similar character, involving serious loss, find their remedy in the installation of manufacturing cost, of factory, office and other accounting systems, by means of which the management of a business is enabled to secure at all times, and without delay, a comprehensive, yet concise and thoroughly clear, statement of every detail that enters into the cost of production and distribution of the articles produced. Thus, in quoting prices, it is possible to know exactly how low a bid can be made, and thereby avoid the ruinous policy of accepting work just to secure a contract, without regard to whether a reasonable amount of profit is made thereon.

The modern true cost finding and cause exhibiting systems of accounting are scientific achievements, born during the last decade, and filling a long felt want by supplying the measurements and other data calculated to promote the practice of economies. These systems must not be confounded with the cumbrous, so-called cost systems of fifteen or twenty years ago, with their far-fetched schemes of percentage or "blanket" methods of burden distribution; they are as different from these as is a modern steam engine from its original Stephenson prototype. The past decade has witnessed important advances in many lines, but possibly none of greater importance than in the science of cost accounting.

Proprietors and managers have long wanted exact knowledge of the cost of their output and have realized the great advantage of the cost of their output and have realized the great advantage will admit (if they are honest about it) that they really do not know anything certain about their costs. Many self-styled "expert cost accountants," with their "ready to wear," "fitted to any plant" cost systems, have taken advantage of this condition of affairs, have reaped a harvest for themselves and their employers, and have left their clients in a worse state of confusion than they were before on the subject of costs. There is no such thing as a ready-made cost system. Each plant, even in the same line of business, has its individual peculiarities and requirements

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and calls for individual study and organization in adapting to it the system fitted for its needs.

The public point of view toward the professional accountant, at the present time, was well expressed in a recent article by Frank W. Main,\* who said, *inter alia*:

"That there is much confusion in the popular mind as to the real work of the accountant and as to the very important service which he is rendering in the business world, is not at all surprising.

"In the first place, jobless bookkeepers without number, auditors of individual companies, seeing other fields of advancement closed, and cost clerks, certain that their grasp of the one particular business with which they are familiar has given them a grasp of all businesses and a knowledge of all manufacturing problems, have started out in the professional field as full-fledged auditors, accountants, systematizers, and business experts, when, if experienced at all, their experience is confined to but one limited business. In some cases, at least, these "auditors" have about the same right to be known as professional accountants as a hospital orderly would have to palm himself off as a skilled physician. The initial work which usually falls to the lot of the self-styled accountant on his first incursion into the professional field is usually in a line of business somewhat of the same nature as the one he has recently left. With the nerve which was necessary to start out in business for himself, and with his practical experience in that particular line, he is often able to render valuable service to his clients. As time goes on, however, and his business is extended into other lines, his difficulties increase; for unconsciously the effort is made to conform all business to the methods and the systems of the one concern with which he was most familiar. As a result, ludicrous situations usually arise, and the usual experience is that after heroic efforts of a few years he is glad to accept some permanent position at an assured salary with an established concern.

"In his trail, however, are usually left scores of business men with the well-grounded belief that their own bookkeepers know all that any professional accountant does, and with the conviction that the paying to the accountant of the fees which he

\* Saturday Evening Post, July 26, 1912.

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demands is only foolishness, as they are certain that the same services can be as well rendered by their own employees.

"The second cause of confusion as to the real service which is being rendered by the professional accountant is the impression created by some auditing companies, with their more or less prominent boards of directors, that auditing, accounting, and systematizing constitute purely and solely a business; and that contracts for such work should be very largely placed in the same way that a contract for painting or brick work would be, namely, to the lowest bidder."

However, a satisfactory manufacturing cost system, in addition to showing whether a business undertaking is profitable and affording a basis for fixing selling prices should, above everything else, furnish such clear, precise and comprehensive information as will enable the executive officer to obtain, upon short notice, the facts and data necessary to inform his administrative judgment and guide him in intelligently planning and carrying out his administrative and selling policies.

A properly designed manufacturing cost system enables the business manager:

(a) To determine which lines of production or merchandise are profitable and which are unprofitable, so that steps may be taken to increase the production and sale of such lines as are profitable, and to reduce or eliminate altogether the unprofitable lines.

(b) To decide intelligently and accurately the basis upon which commissions or salaries can be paid to salesmen or agents upon the various lines, and to what extent, if any, extra commissions can profitably be paid for sales exceeding a certain fixed amount.

(c) To *reduce costs*, either through direct reduction, or through a readjustment of the elements composing cost, or through an increase of production.

(d) To discover leaks and thus stop all unnecessary waste or extravagance.

(e) To develop the highest type of productive efficiency, by discovering and strengthening the weak points and harmonizing the work of the various departments or operating groups.

(f) To estimate the relative efficiency of managers by com-

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paring the net results of their administration; thus the manager whose cost of production is, say \$10 per unit, is obviously less efficient than the manager or foreman who, under similar conditions, obtains a production cost of \$8 per unit.

(g) To compare the similar work of superintendents, foremen, operatives, machines or other "centers" of production.

(h) To distribute, correctly and scientifically, the departmental and general overhead expenses, the failure to do which so frequently characterizes many so-called cost systems and leads to the adoption of dangerous, and often fatal, administrative and selling policies.

(i) To maintain continuously "perpetual inventory" records, enabling the same accurate accounting for merchandise that is now required for cash, and making possible the determination of the financial position of the enterprise at all times.

(j) So to relate the perpetual inventory records to the records and activities of the purchasing department, as to increase general efficiency by preventing the necessity for emergency purchases, enabling the easy maintenance of a proper balance of materials and supplies carried in stock, by facilitating the buying in such quantities and at such times as to obtain the greatest advantage from the state of the market, from discounts, and so forth.

(k) To determine whether it be cheaper to buy or manufacture incidental parts forming an integral part of the factory output.

(l) To compare costs in general and in detail the costs of one period with those of another, and to arrive at a clear understanding of the exact reason for such variations as exist.

(m) To compare actual costs with estimated or predetermined costs. The tendency of modern productive methods is toward standardization. It being possible to arrive at definite standards, a comparison of actual costs with such standard costs determines the percentage of inefficiency.

(n) Finally, any cost system to be dependable, must be integrally related to, and controlled by, the financial books of account.

The foregoing are some of the advantages to be derived from a comprehensive, modern system of cost finding and efficiency

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records under which, regularly and automatically, the information passes in review before the executive in command of the business or any of its departments.

The general manager, upon whose shoulders rests the final responsibility for the success or failure of a business, should always be in a position to place his finger upon the pulse of the entire organization, and detect instantly any need that may exist for alteration or improvement in methods, and to know exactly where to apply the remedy. The day has gone by when by mere visual observation, the factory manager could see what was going on inside the various departments of the factory, and upon the basis of such physical outlook only efficiently manage the same. He requires a more accurate and better perspective than can be obtained by mere ocular observation, and all this can be accomplished with certainty, economy and dispatch when the daily routine of a business has been intelligently and accurately systematized.

Many manufacturers realize the importance of this subject, but hesitate to take any definite action through a vague fear of encumbering their establishment with red tape, interfering with their productive effectiveness during the installation of a new system, and above all of incurring the "heavy expense" of devising and installing a manufacturing cost system.

Others, while well aware of the fact that the existing system is deficient, in that it fails to furnish them much of the information enumerated above, yet are deterred by this same fear of "heavy expense" from taking steps to revise it or to replace it in its entirety with a modern system constructed along lines of absolute accuracy and effectiveness.

Less consideration, however, would be given to this matter of expense did the manufacturers realize that the resulting economies, in nearly every instance, would in a very short time more than repay the entire cost of devising, installing and operating an intelligently designed cost system. It has truthfully been said that more companies are bankrupted by too much business than by too little. Such an indictment of modern methods could never be justified if the average business man made certain, in quoting prices, that there be included, not merely the main items of cost, with a rough guess for extras, but a definite and intelli-

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gent allowance, based on accurate knowledge, for the indirect expense of each and every department as well as the proper proportion of general overhead charges, such as rent, light, heat, insurance, interest, taxes, depreciation and numerous other items, all of which have to be paid before profits can be assured.

All of the foregoing, of course, applies not only to a manufacturing business but also with equal, and in some respects greater, force to a purely mercantile or trading business. The problems of cost, though less complex, are nevertheless exactly the same in principle, while the competition of the market, affecting the selling price, is usually much keener.

The public accountant and expert systematizer, by reason of his broad experience and knowledge gained in many branches of industry, is able to be of practical value in such cases, and many concerns have been rejuvenated and have started out with a new lease of life as a result of the time and money saving methods installed, and the counsel and advice furnished by certified public accountants.

The importance of the work of the public accountant is beginning to be generally recognized. In this country, where methods of business in the past necessarily had to adjust themselves, somehow, to rapidly changing conditions, the official, legal, recognition of the certified public accountant is comparatively recent, dating back only about fifteen years. The state of New York was the first to take action, but at the present time the degree of Certified Public Accountant, the American equivalent of the English Chartered Accountant, has been given legal recognition in some twenty-five states. His professional standing in Europe, however, dates back considerably over half a century.

The certified public accountant occupies a distinct and important position in the economy of modern business. His ability to furnish those engaged in commercial enterprises with a strictly accurate perspective of their affairs is of the utmost importance in eliminating waste and in directing effort and the value of this assistance is being recognized more and more widely every day.

## Enforcement of By-Laws\*

By THOMAS CONYNGTON

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### Third Article

#### MANDATORY AND DIRECTORY BY-LAWS

As to observance and enforcement, by-laws may be classified into those that are mandatory or imperative, and those that are merely directory or declaratory.

A mandatory by-law is one which instructs or prescribes how or when some act shall be performed, and the non-observance of this procedure renders the act void. A directory by-law, on the other hand, prescribes how or when certain things shall be done, but the mere fact that they are not done in that manner or at that time does not render them void.

Thus a by-law directing the stockholders' annual meeting to be held on a specified day is mandatory, and if the meeting were held on another day—unless in accordance with other legalizing by-law or statutory provisions—its proceedings would be wholly void. But a by-law prescribing the order of business at a stockholders' annual meeting is merely directory, and if not observed does not render the proceedings void.

Other examples of mandatory by-laws are those prescribing the manner in which special meetings must be called and notified to the stockholders; providing the method of appointing standing committees, and fixing the quorum at stockholders' and directors' meetings, when this can be legally done in the by-laws.

Examples of directory by-laws are those prescribing the method of issuing stock, how money shall be deposited, the form of the corporate seal, and the like. The violation of by-laws of this nature may perhaps subject the offending corporate official or officials to a penalty or to removal but does not invalidate the action. The principle is the same as applies to statutory or charter provisions. Thus, "The breach or neglect of such provisions of law, although only directory in their character, may

\* The last of three articles by Mr. Conyngton, covering the nature, adoption and enforcement of by-laws. Sustaining citations are omitted.

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render officers personally liable for neglect of duty or subject the corporation to proceedings on the part of the government for disregard of the requisitions of its charter, but it does not impair the validity of its recorded acts so far as to affect the rights of third parties."

The distinction is pointed out in an early Arkansas case: "One of the criterions by which to determine whether the requirements of a statute are imperative or merely directory is that those acts which are of the essence of the thing required are imperative, while those which are not of the essence, are directory. The case before us is an apt illustration of the rule. The giving of sixty days' notice is imperative, and must be strictly complied with because it is of the essence of the thing to be done—the *mode* of doing so is directory, because not of the essence, and may be either by publication in the manner prescribed by the charter or by actual personal notice."

An illustrative case is that of *Warner v. Mower*, 11 Vt., 385 (1839), in which referring to the notice for annual meeting alleged to be necessary it was said: "But if such a provision in the statutes of the corporation, in relation to the annual meeting, had been found in express terms, it should still receive the same construction which similar provisions do in legislative statutes. When the statute is merely directory—*i. e.*, directs the manner of doing a thing, and is not of the essence of the authority for doing it—a compliance with its requisitions is never considered essential to the validity of the proceedings, unless such is the evident or expressed intention of the legislature."

Provisions as to publication of notices of assessments or calls on stock are usually mandatory, and conformity with the statute or by-law is a condition precedent to enforcement of such assessments or calls by suit.

A by-law requiring that directors be chosen at the annual meeting is merely directory and does not imply that an election of directors held subsequently would be void.

FORCE OF BY-LAWS

Theoretically by-laws are the means through which the stockholders or members give their instructions for the management of the corporation, and prescribe limitations under which this

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management is to be exercised. This theory is completely overturned in those states, like Illinois and Kentucky, where the directors have the sole power to make by-laws, but even here the officers and directors are bound to obey the requirements of the directors' by-laws, and in case the directors make improper by-laws or fail to make those desirable or necessary for the control of the corporation, the delinquent officials can always be replaced at the next election with directors more amenable to the demands of equity.

As stated, it is the duty of directors and officers of corporations to obey its legal by-laws. Usually in the ordinary business corporation the by-laws do not impose any positive duty upon the individual stockholder, but in the few cases in which they do, the duty must be performed.

In the various non-stock corporations more positive duties are imposed on members. By-laws prescribing the payment of dues, the payment of premiums in mutual insurance companies, the prohibitions of immoral conduct in various secret organizations and religious bodies, and even the actual control of business relations with other societies, have been sustained.

### PENALTIES FOR VIOLATION OF BY-LAWS. STOCK CORPORATIONS

In some states, as New Jersey and California, the statutes permit a stock corporation to impose direct penalties for violation of by-law provisions. In New Jersey, Michigan, North Carolina, Pennsylvania, Rhode Island, Wisconsin and New Mexico these must not exceed \$20. In California, Montana, Idaho, North Dakota, Oklahoma and South Dakota the limit is \$100. Where there is no statutory authority for fines it does not appear that stock corporations can legally impose such penalties or collect such penalties if imposed.

In *Monroe Dairy Assn. v. Webb*, 40 App. Div. (N. Y.), 49 (1889), the court said:

"Despite the reiteration in text books and in many judicial opinions of the statement that corporations have the implied power to impose pecuniary fines for the violation of their by-laws, which may be enforced in an action for debt, we are very much inclined to question the authority of any private corporation in this state, or at least of any private stock corporation,

without express legislative authority, to impose fines for the violation of its by-laws for which the incorporator may be sued and amerced in his property. In England, where our laws on the subject originated, corporations, as a rule, were municipal. When private, such as trade guilds, they were invested with no small share of governmental powers. Business corporations formed solely for pecuniary profits, which constitute the great majority of corporations in this country, were not corporations in England, but merely joint stock companies.

"It is said by Mr. Morawetz, *Private Corporations*, § 491: 'The term "By-law" was originally applied to the law and ordinances enacted by public or municipal corporations. The difference between a by-law of a private company and a law enacted by a municipality is wide and obvious. The former is merely a rule prescribed by the majority, under authority of the other members, for the regulation and management of their joint affairs. A by-law of a municipal corporation is a *local law*, enacted by public officers, by virtue of legislative powers delegated to them by the state.' In the matter of Long Island Railroad Co. (19 Wend., 37) it was held that an incorporated company had not the power to enact a by-law subjecting stock to forfeiture on account of the non-payment of installments due thereon without express legislative authority. In corporations or associations which possess the power of expelling their members for breach of their duty to the corporation, or for misconduct as corporators, the corporation may doubtless provide reasonable fines for such misconduct, the payment of which can be enforced by expulsion of the member who fails to pay his fine. But I fail to find a reported case in this country where recovery has been had for a fine imposed by a by-law of a private corporation."

In *Thomas v. M. M. P. Union*, 121 N. Y., 45 (1890), the court said in reference to the imposition of fines by a membership corporation, "No process is provided by which the corporation can collect them, and then payment, if made at all, must necessarily be by the voluntary action of the plaintiff."

Nor may the ordinary corporation enforce its by-law by expulsion or forfeiture, for the rule is that corporations organized for gain have no power of expulsion or forfeiture unless granted by charter or statute.

### *Enforcement of By-Laws*

#### **PENALTIES FOR VIOLATION OF BY-LAWS: MEMBERSHIP CORPORATIONS**

If such power is given in their charters, constitutions or by-laws, membership corporations and voluntary associations have power to expel contumacious members for proper cause or to fine them and then suspend them until payment is made.

In Monroe Dairy Assn. v. Webb, 40 App. Div. (N. Y.), 49 (1899), already quoted from, the court said further:

"The respondent relies largely on the authority of Matthews v. Associated Press (136 N. Y., 333). There it was held that a by-law of the corporation prohibiting its members from receiving the news dispatches of other news associations covering a like territory, and providing that for an infraction of the by-laws the members should be suspended from the rights and privileges of the association, was valid. The case is not in point. The corporation there was of a different character from the plaintiff. In corporations or voluntary associations, such as clubs, stock or mercantile exchanges, benevolent institutions, medical societies, and the like, there exists a personal duty on the part of the member to conduct himself, in matters under the cognizance of the corporation, in compliance with its rules. In corporations of this character the power of amotion exists, and a member may be expelled for a violation of the rules of the corporation, or even for an offense which has no immediate relation to the corporate character of the party, but is of so infamous a nature as to render the offender unfit to associate with other members. In all corporations, however, of this class, there is a personal and corporate duty from the member to the corporation, while in mere trading or business corporations, having capital stock, there is, as already stated, no greater duty resting upon a member than to pay for the stock for which he has subscribed. Even for a failure to comply with this duty, we have seen that his stock can not be forfeited and he expelled from the corporation, except where express statutory authority is given. With regard to what are called joint-stock incorporated companies, or, indeed, any corporations owning property, it can not be pretended that a member can be expelled, and thus deprived of his interest in the stock or general fund, in any case by a majority of the corporators, unless such power has been ex-

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pressly conferred by the charter.' If the learned authors by the expression, 'any corporations owning property,' intended to include clubs, exchanges, and similar organizations which may own property but have no share stock, the text does not give correctly the law of this state in that respect. But, in other respects, it is an accurate statement of the law. The case cited recognizes the distinction between trading and other corporations. A man might commit the most heinous crime, and it would hardly be claimed that thereby he forfeited his bank stock or railroad stock."

It must be noted, however, that unless authority for the expulsion of a member is found in the law of the society, *i. e.*, its charter, constitution or by-laws, or the statute under which it is organized, such power does not exist. Also it is essential to the exercise of such power that the offending member be notified, that charges be formally preferred against him, and he be heard in his own defense. If the accused refuses to appear when duly summoned before the proper tribunal of the corporation, he may then be expelled for contempt. If, however, the member is expelled without an opportunity to be heard or a fair trial, his expulsion is of no effect and injunction will lie to prevent expulsion, or a written mandamus will be granted for his reinstatement.

There is a distinction to be drawn between cases where property rights or money demands are in question and in which the rights of the individual are based upon the nature of his contract with the corporation, and those other cases in which it is only sought to discipline the member for conduct subversive of the objects of the organization or contrary to good morals. In cases involving improper conduct the courts are slow to interfere and when their aid is asked it must be shown that (1) the rules of the organization are against natural justice, or (2) that the attempted discipline does not conform to the rules of the organization or that there is manifest *mala fides*, or (3) that there has been no hearing, or (4) that the member has not exhausted his remedies within the society.

When fines are imposed as for default in paying dues, assessments or installments on shares in building associations, the fines so imposed must be reasonable. In Endlich on Building Associa-

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tions (§ 425), the author says: "The proper measure of fines is the real damage the Building Association sustains from the failure of a member to pay his dues, which damage is really equal to interest upon the amount, together with the proportion coming to it from the then obtainable premiums upon the sale of money. The fine should be slightly in excess of this, so as to make it more profitable to members to pay promptly than to lag behind. A fine of from one to two per cent a month would in nearly all cases be sufficient and just." Such a fine certainly could not be deemed unreasonable.

#### **VIOLATION OF BY-LAWS BY OFFICERS**

An officer who of his own motion violates a by-law (1) is liable for any damage resulting to the corporation or to any stockholder as a consequence of such breach; and (2) renders himself liable to amotion or removal by action of the board of directors.

If damages are sought, the liability of the officer in fault must be determined by the usual legal means of suit in a court of law. If it is sought to remove the offender, charges must be preferred, he must have due notice thereon, and be given opportunity to answer them and to defend himself before he may be removed.

In New York by statutory provision it is provided that any officer may be removed at pleasure by the board of directors. Elsewhere a similar provision is frequently inserted in the by-laws. While this power on the part of the board is liable to abuse, it not infrequently saves much difficulty.

A difficult situation sometimes arises where the board of directors instructs an officer to do something which he considers forbidden or otherwise ordered by the by-laws. Generally the officer is perforce compelled to accept the board's construction of the by-law provision, even against his own belief. Though he may be right he is not usually in a position to assert his judgment. He must either obey or resign.

#### **VIOLATION OF BY-LAWS BY DIRECTORS**

A single director as such has no authority in corporate mat-

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ters and therefore cannot in his capacity as a director violate the by-laws, except by neglecting to give such measure of care and attention to the corporate business as the by-laws may prescribe. As a board, directors very frequently override the by-laws. In such event any dissenting director or directors should protest against the violation of the by-laws and ask that such dissent be recorded on the minutes. By so doing they may avoid any personal liability in the matter.

Those voting in favor of a violation of the by-laws or acquiescing in neglect to enforce by-laws, make themselves liable to the corporation for all damages resulting from such action. If the corporation becomes insolvent through such action or failure to act, the receiver can recover from the directors at fault. But if stockholders acquiesce in long continued violation of, or omission to observe, by-laws on the part of directors, usage will operate to repeal the by-law and it has been held that in such case the directors cannot be held liable for the consequence of such action or omission.

If no loss results from action contrary to the by-laws, the directors are not likely to suffer any penalty for such violation. Naturally the board of directors composed of the offenders or dominated by them, will not call such offenders to account, and almost the only remedy the stockholders have in such cases is to replace the offending directors at the next annual election.

Stockholders may have a common law power to remove directors for adequate cause but the difficulties in exercising this power are such that it is but rarely used. In some few states directors may by statutory provision be removed by a two-thirds vote of all the stock. In some states such power can be secured by special provision therefor in the charter.

Directors cannot be removed by their fellow directors, and by-laws attempting to confer such power are illegal.

Gross abuse of office on the part of the directors amounting to fraud, oppression or open wrong, would be sufficient ground for interference by the courts. In such a case a criminal prosecution could also usually be instituted.

**VIOLATION OF BY-LAWS BY STOCKHOLDERS**

Individual stockholders of a corporation cannot, as a rule,

### *Enforcement of By-Laws*

violate the by-laws, since the by-laws are their own commands to the directors and officers prescribing the management of the corporation. Violations of the by-laws by the stockholders in part or in whole may, however, occur. For instance, in those sections of the by-laws relating to the holding of the annual meeting there are usual mandatory provisions as to the place, the day and the hour. If the stockholders or a portion of the stockholders violate the by-law provisions as to annual meeting in any of these particulars, the meeting so held is void.

Thus *People v. Albany, etc., R. R. Co.*, 55 Barb., 344 (1869) had its origin in the notorious proceedings of Fiske and Gould when wrecking the Erie Railroad. On the particular occasion they were in the minority but met in the office of the corporation fifteen minutes before the appointed time, called the meeting to order and captured its organization. The majority protested and took the case into courts, and the irregularity in calling the meeting to order before the appointed time was held sufficient to void the entire action of the meeting.

A more difficult case is where the minority without specific violation of the by-law provision get control of the meeting by force, fraud or irregular procedure. In such case the aggrieved stockholders may withdraw, resting upon the errors, fraud or irregularity in the organization to set aside any election subsequently held. Or they may continue to take part, to vote under protest and take legal action later if their rights are overridden. Even though in a majority, they cannot legally withdraw and hold another meeting in the same room or just outside the room or in an adjoining room. "The acts of a majority at a corporate meeting are not binding upon the company, unless the proceedings are conducted regularly and in accordance with general usage, or in the manner prescribed by the charter and by-laws of the company."

In case it is impossible to hold a meeting in the specific place, as for instance when the specified room is locked and no key can be found, then the stockholders should assemble outside the door, in an adjoining room, or as near to the specified place as possible, and meet there.

## Farm Accounts

BY JOEL HUNTER, C.P.A.

The farmer, so long the under dog, is at last having his day. From the university to the district school; from the innumerable bulletins of the Department of Agriculture to the popular magazines; from the United States government which appoints commissions on farm life, to the banker who encourages the formation of corn clubs among the boys and girls—from every quarter—comes recognition and encouragement. The farmer is urged to add to the wealth of the nation, and a highly trained corps of experts stand ready to show him exactly how to increase the yield of every acre and every barn yard fowl. But curiously little has been said of the business side of farming, and particularly of the keeping of farm accounts in a business-like way. The farmer does not know exactly how much capital he has invested, nor the amount of time which he, his employees, and perhaps his wife and children, expend upon a given amount of work. He keeps no record of the feed consumed by his stock, nor of the average working life of the individual animals, neither has he a clear idea of the yearly depreciation of his buildings, machinery and tools. Consequently he does not know whether his business is running at a profit or a loss. It is inconceivable that he will continue to be content with making a bare living. He must learn, as the manufacturers have well learned, to keep reasonably accurate accounts and to compute his costs.

The purpose of this paper is to suggest how the average farmer should keep his accounts—keep them simply and keep them accurately.

We will suppose the case of a man who has the necessary practical training for successful farming, and possesses \$20,000 for which he wishes to find a good investment. If he put this into mortgages or bank stock, he would receive 6%; if he went into some mercantile business, he would presumably make much more than 6%; therefore he realizes that, if he invests his \$20,000 in a farm, it must net him over \$1,200 a year, or there will be no real profit. And in order to know if he is making a profit, he must keep a strict account of his outgoings and incomings.

## Farm Accounts

The first step is to take an inventory which is a list of the property bought. The inventory is the correct basis of farm records, without which no accurate results can be obtained. It should be taken at the same time each year, at a date when all

### WAINWRIGHT FARMS

#### YEARLY FINANCIAL STATEMENT—JUNE 30TH \*

##### ASSETS

		1912	1913	1914
Farm land 240 acres .....		\$12,000.00		
Products—				
Corn .....	Bus. @	150.00		
Oats .....	Bus. @	101.75		
Bales Cotton .....	Lbs. @	2,255.00		
Hay .....	Lbs. @	180.00		
Vegetables .....		75.00		
Fruits .....			.....	
Miscellaneous .....			.....	
Total .....		\$2,761.75		
Stock—				
Horses (see list) .....		900.00		
Cows .....		1,200.00		
Steers .....		200.00		
Heifers .....		80.00		
Hogs .....		100.00		
Sheep .....		450.00		
Miscellaneous .....		.....		
Total .....		\$2,930.00		
Sundries—				
Supplies .....		50.00		
Implements and machinery .....		950.00		
Household goods .....		525.00		
Cash .....		683.25		
Other items .....		.....		
Total .....		\$ 2,308.25		
Total of all assets .....		\$20,000.00		

##### LIABILITIES

Farm investment .....	\$20,000.00
-----------------------	-------------

or most of the crops are sold off and there is the least accumulation of stores, supplies, etc. This date, of course, varies in differ-

\* While this is headed "Yearly" Financial Statement, there is no good reason why it should not be prepared quarterly, or even monthly, except for the trouble of listing the inventory of product, stock and sundries.

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ent localities. Each article should be counted or weighed; there must be no guessing. Since this must be done each year, the record should be arranged in columnar form to provide for several years.

This inventory is entered upon a book which, by reason of its dual scope, is called a cash journal. The book should be made specially for the purpose. It is of the loose leaf variety, with pages about 24 inches wide or more by 14 inches deep. It is ruled in double columns appropriately headed with the names of farm products and expenses. After entering the inventory upon this book, with a brief but clear explanation, every item which appears upon the inventory should be posted to a farm ledger, giving a page to each item. All the items are entered on the left-hand side of the ledger page, except the investment account, which is entered on the right-hand side. After this is done, the current accounting work of the farm can be taken up.

The principal expenses of a farm are the cost of labor (wages), feed of teams, and seed or planting material. It is important to have a clear idea as to which account should be charged with each disbursement and which credited with each receipt. Thus cotton, for instance, should be charged with all cottonseed purchased, all labor engaged upon it, all fertilizer bought and used upon land planted in cotton, the proportion of the superintendent's wages, and any other expense or charge applicable to it. All cotton and cottonseed sold should be credited to it. Then at the end of the fiscal year, the balance to the credit of cotton account on the ledger when all of the cotton is sold and credited, will show exactly what has been made or lost on cotton. But the important part is to be sure that all proper costs accruing during the year have been entered against cotton.

The chief expense factors in getting out farm products are labor and feed. Labor, being the greater expense, is taken up first. If the farmer is his own superintendent, he specifies where each employee shall work as he starts out in the morning, or perhaps issues instructions the night before. Then in the evening when work is left off, the time spent by each man on each crop operation or other department is entered on an individual card (or in a book if preferred) under its respective heading, as shown on page 172. This is known as the pay roll card, or leaf,

### *Farm Accounts*

or sheet. In order to reduce the number of records and forms to be used, this is arranged on a very comprehensive plan. Careful attention is invited to this form, for it covers a large part of the farmer's expenses. The name of the employee is put at the top and his wage rate, by the hour, day, and month. The headings "Hours," "Crop," and "Team" at the top of the three respective columns indicate hours worked, the crop on which the labor was expended, and the number of hours teams were employed if they were used. Running down the left-hand side is the day of the week and month. Its use is illustrated as follows: Wm. Brown on Monday, January 6, worked 8 hours on cotton. Under Hours is entered 8; under Crop, cotton (abbreviated to "cot"); and under Team, a cross mark indicating that no team was used. At the end of the week the man's time is multiplied by the rate per hour, and he is paid. This payment is charged on the cash journal to farm labor or pay roll. At the end of the month, say, the whole leaf is gone over and the man-time and the team-time are figured out separately, and each crop or department is charged. The total man-time is credited to Pay Roll account, and the various crops charged as stated. This is done by journal entry on the cash journal. The team-time is treated in the same way by charging the various crops or departments and crediting Team account. Next a team-labor unit must be determined, that is, what price per hour shall be charged out for the use of the teams which the farmer already owns? All the feed, horseshoeing, veterinary service, and all other expenses are charged to Team account, and this must be distributed to the crop accounts in their proper proportion of expense in order to see what these crops are costing him; a similar amount must be credited to Team account. Even when the team is not used, the expense of its keep goes on, and this extra cost must be absorbed in the crop costs. The charge per hour or day should be the average unit of expense. That is, if the farmer has six head of stock and they cost \$60 a month to keep, he will charge  $2\frac{1}{2}$  cents an hour per head, which for 300 eight-hour working days amounts to \$360. In this \$360 is supposed to be an allowance to cover depreciation. Depreciation would be worked out in this way: If a \$260 mule is considered good for 15 working years after maturity, and the mule is bought when it is six years old, then, four years being regarded as maturity, there would re-

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main 13 years of working life, barring accidents and sickness. Twenty dollars a year, then, would be considered a depreciation charge.

On farms where machinery is used in addition to agricultural implements like ploughs, harrows, etc., it is proper to consider the machinery expense just as we do the team expense. Included in Team also would be the cost of wagons, harness, etc., and repairs on the same, including depreciation. Depreciation is particularly heavy in farm machinery and implements, and an arbitrary write-off value should be established. Each year a certain amount should be charged off, based on its yearly proportion of life or lastingness. A wide experience shows that the following proportions are fairly accurate:

Buildings .....	5%
Horses and mules (above 5 years old).....	7% to 10%
Milch cows (after 3 years) .....	8%
Machinery and tools .....	10%

This means that ordinary farm buildings may be expected to last about 20 years, when visible repair needs are met. Horses are good for about 18 years; cows for 15 years; and machinery and tools for 10 years.

There must be a complete checking system to determine the correctness of the figures if for some reason the record work gets behind and has to be written up after the transactions get "cold." The farmer should, of course, run a bank account and use checks whenever it is practicable. To keep the cash straight, the imprest system should be used. That is, a certain amount of cash should be provided automatically as a working fund. Suppose that he draws out \$100, pays his weekly wages and a few other bills, for all of which he takes receipts, and finds at the end of the week that he has paid out \$79.50. A check should be made out and cashed for the total of \$79.50, thus restoring to the working fund the amount paid out. The cash journal entries are made from the received bills.

In order to avoid confusion with purchase invoices, they should be pasted into a ledger in alphabetical order. On each page, at the right, should be left a margin or column of an inch and a half, ruled for dollars and cents. Into this column is extended the net amount of each invoice, and at the end of the

### *Farm Accounts*

month these figures are footed. They are charged to their respective accounts directly upon payment.

A complete sales record can be built up by making a carbon copy of these sales invoices, and using the extension margin. They are charged to the respective customers' account direct from the carbon copy of the invoice, and at the end of the month the various amounts are footed, analyzed, and credited to the proper Farm Sales accounts. This saves lost motion, and the percentage of accuracy is increased.

The cost of feed for teams is the second large farm expense. There is some question about determining the price of hay raised on the farm and fed to stock. The correct price is what it cost the farmer. The total cost is found on the ledger. The number of pounds raised divided by the total cost will give the average for 100 pounds. This should be charged to Team and credited to Hay account. Corn and oats are treated in the same way. If any is sold, over and above what is used, that is, of course, credited to its proper account, and remains as a part of the general profit or reduction of expense. If it is necessary to buy any extra feed, the opposite is true.

All cotton sold is credited to Cotton account. Vegetables used for home consumption are charged to House account at cost, and credited to Vegetable account. A careful record should be kept of all milk sold, and credited to Dairy account. Hogs and sheep used on the farm are charged to House account, and credited to Hog and Sheep accounts. When the animals are sold, these accounts are credited and Cash charged. General supplies not applicable to any particular crop are charged to Supply account. Poultry, when purchased, is charged to Poultry account. This is a money making account, though it comes in dribs and drabs. There should be no charge for the manure. This belongs to the land in order to keep it from depreciating in value. When other similar questions come up they should be very carefully considered before reaching conclusions, as an orderly plan in the method of charges will establish precedents that in time will become valuable in the building up of statistics.

At the end of the year a physical inventory should be taken on the farm. From the information transferred to the ledger from the cash journal, pay roll leaves, purchase and sales invoice systems, check book, and yearly inventory sheet, a financial

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statement can be prepared. The farm should be valued at market price, not at what was paid for it. If the market price is more than the purchase price, the difference is credited to Appreciation account.

PAY ROLL SHEET \*

Name .....

Wage, per hour ....., per day, ....., per month .....

1913	Hours	Crop	Team	Mach.	Recapitulation
Jan. Mon. 6th	8	Cot.	x		Totals
Tues. 7th	6	Cot.	6		Hours
Wed. 8th	7	Corn	7		Man Time .....
Thurs. 9th	5	Oats	5		Team time .....
Fri. 10th	8	Hay	8		Mchy.
Sat. 11th	4	Poultry	x		Total hours .....
Total	38		26		
38 hours @ 30c = \$11.40					
					Charge:
Received payment					\$

Suppose that in the case of the farmer who invested \$20,000 the statement showed a profit of \$2,200. This figure should prove with the difference between the total sales and the total expenses. After balancing the ledger, the purchase, expense, and sale accounts are separated from the asset and liability accounts. From the inventory are drawn all the product and other asset values on hand, which are credited to their respective accounts. All other values are deducted from their respective purchase and expense accounts. The result obtained by deducting the total of the purchases and expenses from the total of sales and other credit accounts should be \$2,200.

This result would show that he had got his living and \$1,000 in money over and above what he could have made on his original \$20,000 if invested at 6%. If a few years after the purchase, farm land should greatly appreciate in value, say double, and experience showed it was impossible to make more than \$2,000 or \$3,000 a year net on the original \$20,000 investment, it would be a financial mistake not to sell and reinvest the proceeds in some other form of venture which would bring in a better per cent of interest.

\* While the above arrangement is by hours, any other unit may be employed.

*Farm Accounts*

WAINWRIGHT FARMS

CASH JOURNAL, MONTH OF ..... 191..

(Left hand of page)

Day Explanation	Bank Account			Cotton			Other Products		
	Deposits	No.	With- drawals	Dr.	Pounds	Cr.	Name	Dr.	Cr.

(Right hand of page)

Fruits and Vegetables			Live Stock			General Expense		Miscellaneous		
Name	Dr.	Cr.	Name	Dr.	Cr.	Dr.	Cr.	Name	Dr.	Cr.

One advantage of keeping the accounts in the manner described is that the system is susceptible of being expanded to any extent desired. Thus if it becomes necessary to pay particular attention to any one department, the records readily lend themselves to such amplification. For instance, suppose it is decided to keep a careful record for poultry and eggs. A ledger account is opened, say, for Brahmans; a record is made of the kind and quality of their feed, the cost of which is charged to Brahma account; and all the chickens and eggs sold are credited to it. On the other hand, if it be desired to reduce the account keeping, all the costs may be charged each to its respective account, and all the sales and earnings properly applicable thereto credited; horses, mules, cows, etc., can be merged into Stock account; corn oats, cotton, etc., into Product account; and so on. In this way, when the final and closing entries are made, the number of accounts may be reduced to less than half a dozen.

## Municipal Cemetery Accounts

By D. CARL EGGLESTON, C.P.A.

A good many cities operate municipal cemeteries and some of these are self-supporting. By the Bureau of the Census cemeteries are classified under the head of public utility enterprises. In the classification prepared by the Bureau of Statistics in Massachusetts, cemetery account immediately follow those for public utilities. In all cases a cemetery department is considered a business enterprise and requires different treatment from a city's ordinary departments.

### UNIFORM CEMETERY ACCOUNTS

The classifications adopted for the receipts and disbursements of a cemetery department in the past have been very simple. The following chart is a good guide to follow in the preparation of reports covering the operation of a municipal cemetery.

### CHART OF CEMETERY ACCOUNTS

#### RECEIPTS

##### 100

- 110 Revenue receipts
  - 111 Sales of lots
  - 112 Care of lots and graves
  - 113 Miscellaneous
  - 114 Interest
- 200 Non-revenue receipts
  - 201 Bequests for perpetual care

#### PAYMENTS

##### 300 Revenue payments

- 310 Expense
  - 311 Salaries, superintendent and office staff
  - 312 Wages, employees for maintenance
  - 313 Printing, stationery, etc.
  - 314 Teaming, plants, sodding, repairs
  - 315 Hearse and hearse house
  - 316 Supplies
  - 317 Tools
- 320 Outlays
  - 321 Land
  - 322 Buildings
  - 323 Equipment

## *Municipal Cemetery Accounts*

### **REVENUE RECEIPTS**

The main revenue of a cemetery department is derived from the sale of lots and graves. This, however, continues to diminish unless new land is purchased. But on the other hand the care of lots and graves continues to be an increasing source of revenue. The miscellaneous source of revenue includes all fees received, and charges for interments, foundations—the sale of flowers, plants, material, and rent of vault. Interest covers all interest received on balances and funds belonging to the cemetery.

### **NON-REVENUE RECEIPTS**

The custom of selling lots and graves with a contract for perpetual care is quite common. In one cemetery it is estimated that it costs fifty cents per square foot to care for a lot one year. Those purchasing lots and desiring to have them cared for perpetually can do so by depositing such an amount of money that the interest on the bequest will take care of the lot. Thus if four per cent is allowed on cemetery deposit funds it is necessary to buy a five-hundred-dollar contract for a lot of forty square feet. Bequests for perpetual care are a trust fund and are a part of a city's fixed indebtedness.

### **PAYMENTS**

The classification presented divides payments into those for expenses and those for outlays. The principal objects for which payments of the former class are made are shown under five heads. Outlays are classified under but three heads, land, buildings, and equipment as shown.

### **ASSETS AND LIABILITIES**

The assets of a cemetery department consist of its inventory of land, buildings, equipment, supplies, tools, book accounts receivable, and cash which are included in the general balance sheet of the city. The perpetual care fund is one of the city's liabilities and is considered "debt within the limit," thereby reducing the borrowing capacity.

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In order to reconcile the books of the cemetery department with those kept by the city auditor, the following entry is made at the beginning of the year on the journal at the cemetery office:

Dr.	Cash in hands of city treasurer		\$1,000 00
	Accounts receivable		10,000 00
	Supplies		4,000 00
	Tools		2,000 00
	Equipment		3,500 00
	Buildings		45,500 00
	Grounds		300,000 00
Cr.	City of A.....		
			\$366,000 00

which opens the following accounts in the general ledger of the cemetery department:

**Cash in Hands of City Treasurer.**

1911							
Jan. 1	Balance	J	\$1,000 00				

**Accounts Receivable.**

1911							
Jan. 1	Balance	J	\$10,000 00				

**Supplies.**

1911							
Jan. 1	Inventory	J	\$4,000 00				

**Tools.**

1911							
Jan. 1	Inventory	J	\$2,000 00				

**Equipment.**

1911							
Jan. 1	Inventory	J	\$3,500 00				

## Municipal Cemetery Accounts

### Buildings.

1911							
Jan. 1	Inventory	J	\$45,500 00				

### Grounds.

1911							
Jan. 1	Inventory	J	\$300,000 00				

### City of A.....

1911							
				Jan 1	Sundries	J	\$366,000 00

## PURCHASES

All invoices for purchases made by the cemetery department are generally approved by the superintendent of the cemetery and then classified according to the object for which payments are made. They are then listed and sent to the city auditor to be entered on the monthly draft which is typewritten in duplicate, one copy being returned to the cemetery department, or a notification of the invoices paid as follows:

Draft	Cemetery Department.			Jan., 1911
No	Name	Description	Amount	Clas'n
1	A. Brown	Superintendent	\$100 00	311
	B. Fox	Clerk	60 00	311
2	C. Kenyon	Laborer	40 00	312
	B. Smith	"	35 00	312
	J. Tod	"	35 00	312
3	Excelsior Printery	Printing	106 00	313
4	A. Livery Co.	Teamng	42 00	314
5	Bates Howe Co.	Shovels	18 00	317
6	International Co.	Wagon	55 00	323
<b>Total</b>			<b>\$490 00</b>	

The following journal entry places the January draft on the books of the cemetery department:

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Journal

Jan. 31, 1911

311	Dr.	Salaries, sup't and office staff	\$160 00	
312		Wages, employees for maintenance	110 00	
313		Printing, stationery, etc.	105 00	
314		Teaming, etc.	42 00	
317		Tools,	18 00	
323		Equipment	55 00	
	Cr.	Cash in hands of city Treas.		\$490 00

The city treasurer acts as the banker for the cemetery department, so the only cash the department can draw on is that in the hands of the city treasurer.

BILL AND CHARGE SYSTEM

A record of each sale made is kept in a book the sheets of which are perforated down the middle so that one-half the sheet can be detached and given to the purchaser. Bills are made out for all sales in triplicate; the original being for the customer; the duplicate filed for a ledger entry; and the triplicate acting as a sales book. There are columns on the sales sheet for use in classifying charges as follows:

	ITEM	Sales	Care	Misc.	Interest	Per Care	Total
1	John Brown 2 lots @ \$50 Per care Use of tomb	\$100 00 800 00 5 00 <hr/> \$905 00					
				\$5 00		\$800 00	
2	B. Smith Care of lots Flowers		\$10 00 5 00 <hr/> \$15 00				
				5 00			
3	C. Knox 1 lot Per care Use of tomb Care of lot		50 00				
				5 00		400 00	
				1 00			
		\$150 00	\$10 00	\$16 00		\$1,200 00	\$1,376 00

## *Municipal Cemetery Accounts*

From the foregoing sales sheet the following journal entry is prepared:

	Journal.	Jan. 31, 1911
	Dr. Accounts receivable	\$1,376 00
111	Cr. Sales of lots and graves	\$150 00
112	Care of lots and graves	10 00
113	Miscellaneous	16 00
114	Interest	0 00
210	Perpetual care	1,200 00

### ACCOUNTS RECEIVABLE FILE

The customers of a cemetery department generally have but one or two bills a year, and so the duplicate of the invoice is filed in a card tray which is operated like an accounts receivable ledger. For example, the duplicates of the three invoices shown on the sales sheet would be filed behind alphabetical guides in a 5 x 8 card file. The sum of the balances on these cards is added to those on the first of the month to get the total amount shown by the controlling account on the general ledger, assuming none to have been paid at the present time. Alphabetical guides are used to facilitate finding the accounts receivable cards. In cases where undertakers patronize a cemetery and have a large number of charges monthly, the individual cards can be dispensed with and cards with ledger rulings substituted.

### COLLECTIONS

As the cemetery department is generally removed a considerable distance from the city hall, it is found advisable to handle collections at the cemetery office. Hence bills are marked, "Make all remittances to the superintendent of the cemetery at\_\_\_\_\_." All cash received is entered in the cash received book under the proper heading as follows:

#### Cash Received.

Date	Name	Sales	Care	Misc.	Int.	Perp Care	Total.
1911							
Jan. 5	John Brown	\$100 00		\$5 00		\$800 00	\$905 00
" 20	B. Smith		\$10 00	5 00			15 00
" 30	C. Knox	50 00		6 00		400 00	456 00
	Total						\$1,376 00

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The collections received from these three customers amounts to \$1,376.00 as shown and are remitted to the city treasurer as, and when received. The next step is to refer to the cards in the accounts receivable ledger file and remove the three for John Brown, S. Smith, and C. Knox and stamp them "Date Paid," after which they are filed in a "Transferred" section of the card file behind alphabetical guide cards. The footing of the cash receipt book is posted directly to the general ledger each month, to the debit of "Cash in hands of City Treasurer" and to the credit of "Accounts Receivable."

### ABATEMENTS

A record of all abatements of charges appears in the minute book of the cemetery board and these abatements are journalized as follows each month:

		JOURNAL.	JAN. 31, 1911
111	Dr. Sales of lots and graves	\$100 00	
112	Care of lots and graves	45 00	
	Cr. Accounts receivable		\$145 00
	Abatements on Joseph Dean                    \$100 00 Abraham Isaacs                45 00 Per minute book		

Cards in the accounts receivable file are removed for Joseph Dean and A. Isaacs and marked "Date paid by abatement," and filed with the other cards in the transferred section.

### MONTHLY RETURNS

A monthly return is generally prescribed by ordinance for each department, and so a cemetery sends in the following return each month:

1. Return of charges.
2. Return of collections.
3. Return of abatements.

These go to the city auditor so that he can make the proper entries in his books for the various transactions of the cemetery department.

## *Municipal Cemetery Accounts*

### TRIAL BALANCE

A trial balance of the general ledger kept in the cemetery department shows the following accounts open at the close of business, which are afterwards closed with an inventory:

Trial Balance.	Dec. 31, 1911
Cash in hands of city treasurer	
Accounts receivable	
Supplies. Inventory Jan. 1, 1911	
Tools. "	" "
Equipment. "	" "
Buildings. "	" "
Grounds. "	" "
Salaries, superintendent and office staff	
Wages, employees for maintenance	
Printing, stationery, etc	
Teaming, plants, saddling, repairs	
Hearse and hearse house	
Supplies purchased	
Tools purchased	
Sales of lots and graves	
Care of lots and graves	
Miscellaneous revenue	
Interest	
Bequests for perpetual care	

### FINANCIAL STATEMENTS

The ground occupied by a cemetery is a diminishing asset which must be appraised annually before the revenue surplus can be determined. As soon as the other assets have been inventoried the following statement is prepared:

Assets.	Liabilities.
Cemetery perpetual care fund Securities Cash	Cemetery perpetual care fund account Amount previously reported Amount received during year

### Loss and Gain for Year Ending Dec. 31, 1911.

Inventory, Jan. 1, 1911, \$366,000.00	Sales \$50,000.00
Purchases 25,000.00	Less abatements 10,000.00
Gain for year 1,000.00	Net sales \$40,000.00
Total \$392,000.00	Inventory, Dec. 31, 1911, \$352,000.00
	\$392,000.00

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A detailed statement of cash receipts and payments accompanies the loss and gain statement which shows receipts classified according to source and payments according to object as follows:

**General Cash Statement, Year Ending Dec. 31, 1911.**

Receipts.		Payments.	
Cash on hand Jan. 1, 1911,	\$1 000 00	Salaries, Sup't and office	\$1,920 00
Sale of lots and graves	25 000 00	Wages, employees	6,500 00
Care of lots and graves	9,000 00	Printing, stationery, etc.	350 00
Miscellaneous	3,000 00	Teaming, plants, repairs	2,580 00
Interest	4,000 00	Hearse and hearse house	1,000 00
		Supplies	6,500 00
		Tools	1,200 00
		Equipment	4,950 00
		Cash on hand Dec. 31, 1911,	17,000 00
	\$42 000 00		\$42,000 00

The cemetery perpetual care fund is not taken into consideration, as it is all turned over to the city treasurer and appears on his books as follows:

**Perpetual Care Fund.**

<b>Balance Jan. 1, 1911,</b>		<b>Balance Dec. 31, 1911,</b>
Receipts	\$95,000 00 5,000 00	\$100,000 00
	<b>\$100,000 00</b>	<b>\$100,000 00</b>

From the foregoing financial statements it appears that a net gain of \$1,000 was made for the year, and that there remains a cash balance in the hands of the city treasurer of \$17,000 on which to draw. The inventory has, however, shrunk \$14,000, mostly due to the sale of land, so that it is probable a large part of the cash balance will be drawn on to meet payments for purchases of adjacent property.

**STATISTICAL RECORDS**

Every fact concerning the management and statistics of a cemetery is made immediately available by the use of cards. A complete card system provides a self-indexed record of lot owners, and a complete record of all interments in each lot, including plot. The interment record carries each name, with necessary information, on a separate card, which is filed alphabetically. The three records mentioned are shown in the following exhibits:

## *Municipal Cemetery Accounts*

**EXHIBIT I**

Address.....							
Avenue.....		Sec .....		Lot.....		Sq. Ft.....	
Date Pur.....		Price.....		Amt. Paid.....		Bal. Due.....	
Year	Care	Top Dressing	Turf-ing	Water	Re-pairs	Total	Paid

**Lot Owner's Card.**

**EXHIBIT 2**

LOT NO.	AVENUE	NO.	SEC.	AREA
OWNER	ADDRESS	PRICE OF LOT	DER FOR PER. CARE	
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Lot Record

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EXHIBIT 3

Name.....	Burial No.....
Late residence.....	
Place of death.....	Ward.....
Board of health certificate No.....	
Age.....years .....	mos.....days.....
Birthplace .....	
Interred in lot No.....	Grave.....Sec.....
Cause of death.....	
Undertaker .....	
Remarks .....	

Interment Record.

The system herein outlined is in successful operation in several municipal cemeteries and with minor changes can be adapted to meet the requirements of any municipal cemetery.

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## EDITORIAL

### The Income Tax

Now that the constitutional amendment authorizing a federal income tax has been ratified by the required number of state legislatures, it seems morally certain that the next Congress will make prompt provision for such a tax.

All taxes are paid out of income. Theoretically, therefore, an income tax would be ideal if the incomes of the citizens of a state could be easily and correctly ascertained. Unfortunately, however, a tax on incomes, like a tax on personal property, is exceedingly difficult to levy with exactness.

The only important objection to an income tax is the practical one, namely, the administrative difficulties. The common objection that it is inquisitorial in character, and would tend to make us a nation of liars, is not worthy of a serious answer. We owe our ability to create incomes for ourselves to the maintenance of law and order by our government, and the state has a perfect right to compel us to disclose the benefits which we enjoy under that law and order, and to make proportional contribution for its maintenance.

In a country like the United States, whose citizens pay taxes on commodities because of the tariff and internal revenue laws,

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and taxes on real estate, since these taxes bear heaviest on the people of moderate means, an income tax should apply only to the incomes of the fairly well-to-do.

It is important that an income tax be levied and collected with the greatest possible ease and certainty. Otherwise the expense of administration may be out of proportion to the revenue. The cheapest and surest way of getting at income is by assessment at the source. Most incomes in the United States come to their recipients in the form of salaries paid by firms and corporations. The present tax upon the net earnings of corporations is substantially an income tax, and is regularly paid by the stockholders. What is now needed is an income tax that will go a few steps further and get from corporations, not merely a statement with regard to net earnings, but a statement of disbursements on account of bonds and salaries, upon which the tax would be levied. If any bondholder or stockholder, whose revenue is thus reduced, is able to show that his total income is less than \$3,000, he should be entitled to an abatement of the tax. The same policy should be followed with respect to partnerships and private business firms.

This so-called method of "stoppage at the source," which has worked satisfactorily in Great Britain, does not touch that portion of a man's income which is derived from foreign investments. Nevertheless, such incomes cannot be easily concealed. They must almost necessarily be handled by banks, and, therefore, cannot entirely escape the eye of the government inspector.

Theoretically much can be said in favor of a differentiation between earned and unearned incomes. It would seem just that the income derived from the sweat of the brow should be taxed less heavily than one which comes from an accumulation of stocks and bonds. It would be unwise, however, for a federal law to recognize such a distinction, for it would necessitate a minute, obnoxious and expensive analysis of the nature of every citizen's income.

A uniform rate, say of one per cent, should be levied upon all incomes exceeding the minimum of \$3,000, regardless of the source from which the income is derived. One of the great advantages of such a tax would be its potential elasticity. In case of war or any other emergency calling for an increase of national revenue, an advance of the rate on incomes would

### *Editorial*

save the national treasury from a deficit and from the necessity of selling bonds at a sacrifice.

The owners of real estate quite naturally object to the payment of an income tax on the ground that they are already heavily burdened by local taxation, which falls mainly upon real estate. Their position, however, is untenable. The tax upon real estate, so far as it falls upon buildings, is paid by the tenants, that is, by the community. In the long run not a penny of it is paid by the owner of the building. That proportion of the real estate tax which falls upon the land is paid by the owner. But this fact was fully taken into account when he bought the land. The tax, therefore, does not cause any reduction of the income which he anticipated from the ownership of the property. It is perfectly just, therefore, that incomes derived from real estate should be subject to a federal tax.

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### Accountancy as a Commodity

In the *New York Times* for February 19, 1913, in company with requests for bids on printing and for proposals to furnish various supplies, the following advertisement appeared:

Mayor's Office, Savannah, Ga., Feb. 12, 1913.

The Mayor and Finance Committee of the City of Savannah, Ga., will receive proposals up to noon March 10, for a complete audit of the various departments of the City Government for a period not less than two nor more than six years, at the city's option, and for the installation of a system of municipal accounting. The price for the latter work is to be given separately and as a lump sum. Address all communications and proposals to The Mayor, Savannah, Ga.

So frank and open an appeal for accounting services on the competitive basis was deemed worthy of serious consideration by the Executive Committee of the American Association of Public Accountants. No formal action was taken but, while commanding the city officials of Savannah for their recognition of the city's accounting needs, the committee was unanimous in its disapproval of their method of procedure.

There are some things that cannot properly, or profitably, be placed upon the competitive basis. If the City of Savannah

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wished special counsel in some particularly important case, would the city officials ask their prominent attorneys to submit bids? Or if medical attendance were needed in their schools, would they ask their physicians for competitive estimates? Or if spiritual consolation were desired for the sick and afflicted of their institutions, would they ask the pastors of their city for sealed proposals? To ask competitive bids from the professional accountants of the country for the city accounting is as derogatory to the profession and should be as unfortunate in results as it would be in any of these other cases. To ask a competitive bid from a professional man is asking him to admit that his services are worth less than the fee ordinarily commanded by his profession.

The following quotation from the reply of a prominent accounting firm to a request for a competitive bid is a good summing up of the whole situation:

"We take the liberty of bringing to your attention the development of the profession of accountancy in this country and the advantage it has been to the commercial community. We venture to express the opinion that in the long run a better profession will be developed and the commercial community better served if the relations between the commercial community and the public accountants can be maintained upon a strictly professional basis. We submit for your consideration that "bidding" is in violation of the professional ethics of lawyers, doctors, and others, and should be so among accountants. We cannot believe when you require the services of the legal profession that you request a price for the work from a member of that profession, and allow your selection to be governed thereby. We presume that you follow the usual course and make your selection of a lawyer according to his qualifications and reputation, and arrange terms therefor mutually satisfactory. We see no reason why this should not be done with accountants and many obvious reasons why it should. \* \* \* We would not care to go into a competition as bidders."

## Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

### PROBLEM No. 15 (DEMONSTRATION)

The following is a trial balance of The Cotton Seed Oil Company, September 30, 1912, after closing:

Land and buildings, \$1,275,946.27; equipment, \$348,727.43; horses, wagons, and motor trucks, \$12,872.51; furniture and fixtures, \$15,269.50; investments, \$200,000; materials and supplies, \$65,138.79; goods in process, \$25,591.46; finished goods, \$45,468.71; cash, \$68,649.52; accounts receivable, \$125,279.34; notes receivable and interest, \$41,286.39; sinking fund for redemption of first mortgage bonds, \$207,667.95; first mortgage bonds purchased out of sinking fund (87 at an average price of 102½), \$89,175; deferred charges to expense, \$12,813.97; first mortgage bonds payable, \$300,000 (dated October 1, 1892, due October 1, 1912, interest six per cent, payable April 1 and October 1, last paid April 1, 1912); taxes accrued, \$14,025; salaries and wages accrued, \$18,927.34; accounts payable, \$87,316.75; notes payable and interest, \$51,487.63; interest accrued on first mortgage bonds, \$9,000; reserve for depreciation of plant and equipment, \$142,305.12; reserve for sinking fund, \$210,825; preferred capital stock issued and outstanding, \$1,000,000; common capital stock issued and outstanding, \$500,000; profit and loss surplus, \$200,000.

The sinking fund has been accumulated by a semi-annual deposit scientifically calculated, and the reserve for the sinking fund has been created out of profits. The entry affecting the reserve for the six months ended September 30, 1912, has been made, but the final sinking fund deposit has not been made. The bonds were taken up and cancelled as of October 1, 1912.

The company issues as of October 1, 1912, a new series of 300 ten-year gold bonds which bear interest at five per cent, have a sinking fund provision, and the reserve for the sinking fund is to be created out of profits as before. Sinking fund deposits are to be made quarterly instead of semi-annually. The amount deposited December 31, 1912, was \$6,136.68. The in-

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terest allowed on the deposit by the sinking fund depository to March 31, 1913, was \$61.36. The amount deposited March 31, 1913, was \$6,136.68.

Prepare:

- (a) Journal entries and skeleton ledger accounts affecting the two issues of bonds.
- (b) Balance sheet, March 31, 1913.

SOLUTION TO PROBLEM No. 15

The author's experience in making and solving problems leads him to observe that, while much attention has been paid to the creation of sinking funds, little attention has been given to their disposition. This problem has therefore as its object, in part, the illustration of how a sinking fund fulfills the purpose for which it is accumulated.

The need for a sinking fund arises in connection with an issue of bonds. The day of reckoning may not be ignored. In order that the funds necessary to meet the obligation at maturity may be on hand when needed, they are accumulated, by laying aside installments periodically, in what is called a sinking fund. The authority upon which it rests is usually the sinking fund clause in the mortgage which states that the fund shall be "set aside out of profits." This is a somewhat loose form of expression, and from an accounting point of view frequently leads to discussion.

The accountant, with his love of precision, finds himself questioning the meaning of an expression such as the above. He is unable to determine whether a reserve is first to be created out of profits and subsequently funded, or whether a certain amount of cash or its equivalent is to be set aside only if the net profits are sufficient, without regard to the creation of the reserve. It is doubtful if the man who drew the first mortgage from which the others have been carelessly copied really knew himself what he meant. A moment's reflection will show the importance of being clear on the point. The fund may be accumulated by merely setting aside the cash installment from time to time and the company may pay dividends regularly. If the provision for the sinking fund is made out of profits, the company may pay no dividends until after the bond issue is

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retired. To the author, reserving for a sinking fund seems ultra-conservative, since the reserve reverts to surplus as soon as the fund is used to pay off the bonds and the company is in no better position to pay a cash dividend than before. It is true, of course, that the surplus may be distributed as a stock dividend, but, it would appear, to the detriment of stockholders during the period intervening between the placing and retiring of the bonds if the list were a changing one. It may also be mentioned here in passing that railroads and large industrials rarely issue sinking fund bonds any more, apparently on the theory that outstanding bond issues will be everlastingly refunded.

Without further discussion of the relative advantages and disadvantages of reserves, it may be stated that the fund is accumulated by setting aside periodically (monthly, quarterly, semi-annually or annually) a certain sum. These sums with their interest accumulate so that at the maturity of the bonds the fund is sufficient to retire them. The sinking fund scientifically calculated represents what is called "the amount of an annuity." The amount to be set aside each time is determined by "dividing one (1) by the amount of an annuity." The easiest manner of determining the proper amount is to consult sinking fund tables such as Sprague's. In a word, the periodical installment is that which will, when set aside regularly at compound interest, amount to the required sum at the end of a given period.

Another method of determining the amount to be set aside consists of dividing the amount of the indebtedness by the number of years, or divisions thereof, which the indebtedness has to run. The amount so determined is that which should be set aside at the end of each period. The fund will not only equal the amount of the bonds outstanding at maturity, but there will be an excess representing the accumulation of interest. Such procedure would be questionable from a standpoint of good finance, in that the company would have been unnecessarily deprived of the use of certain funds. This objection is sometimes overcome by deducting from the amount to be deposited at the end of any period, after the first, an amount equal to the interest earned on the fund during the period just passed. For example; if the amount of a mortgage bond outstanding were \$100,000 and the period covered by the bond, ten years, the amount to be deposited in the sinking fund semi-annually would be \$5,000. If at the end

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of the second period the interest on the \$5,000 deposited at the end of the first period were \$100, the amount to be deposited at the end of the second period would be \$4,900. By continuing with this process, the amount which the company would be required to provide would decrease gradually as the interest on the fund increased.

The sinking fund may exist in the form of cash on deposit with some interest paying institution or interest bearing securities, the rate of interest on deposits ranging from two per cent, which is probably the most common, to four per cent, which is fairly high. The yield on securities will range from four and one-half to five and one-half per cent. In some instances the company's own bonds afford the most profitable medium of investment. That is to say, it sometimes becomes more profitable to call some of the outstanding bonds even at a premium rather than allow the funds to remain invested in securities of other companies or deposited in a bank. This is usually provided for in the bond through a clause which permits the company to call the bonds after a certain date at a slight premium, sometimes however as high as 110. If for example, a company places an issue of five per cent bonds at par and subsequently the level of yield on bonds in general falls so that it is difficult to invest the sinking fund in bonds yielding more than four per cent, it becomes profitable, provided sufficient length of time remains before the maturity of the issue and the premiums required to obtain the bonds is not too high, for the company to call and cancel its own bonds, thereby saving the difference between four per cent and premium on the one hand and five per cent on the other. The contrast is the more striking and the extent of the saving more apparent if a deposit at two per cent is substituted for the four per cent bond investment used in the above illustration. The effect of calling bonds is disastrous to the sinking fund calculations since they must be revised each time bonds are called and redeemed.

If allowed to remain undisturbed until the maturity of the bonds the fund if scientifically calculated will amount exactly to the par of the bonds outstanding. If it exists in the form of bonds of other companies such securities will be converted into cash. The cash, whether proceeding from this source or

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from gradual accumulation, will be used to purchase the bonds outstanding, which will then be cancelled.

There will doubtless arise, in thinking about the matter of interest involved in sinking funds, the question of what becomes of the complement. When interest is charged to sinking fund, what is credited? Usually one of three accounts, namely, income from securities, reserve for sinking fund, or interest on bonds. Obviously, if the bonds are to be retired out of profits, that is, a reserve created and funded, the interest must be credited to the reserve in order that it may at all times equal the fund. If a reserve is not involved, the better procedure would seem to be to credit the amount to interest on bonds: first, because by virtue of this income the expense for interest has been reduced; and second, because the funds corresponding to the income are tied up in the sinking fund and are not available for general purposes.

The journal entries required by the problem follow. A working sheet, for the sake of brevity in so far as the skeleton ledger accounts are concerned and to make the solution clear, has been substituted for the ledger accounts as called for:

Sinking fund for redemption of first mtge. bonds.....	\$ 3,157.05	
To cash .....		\$ 3,157.05
For deposit to sinking fund (9/30/12), being final payment on account of mortgage payable October 1, 1912.		
First mortgage bonds purchased .....	213,000.00	
To sinking fund for redemption of first mortgage bonds .....		210,825.00
Cash .....		2,175.00
For purchase of 213 first mortgage bonds outstanding September 30, 1912, at par.		
Interest accrued on first mortgage bonds .....	9,000.00	
To cash .....		6,390.00
Profit and loss surplus .....		2,610.00
Payment of interest accrued and due on 213 bonds at time of cancellation; excess interest on 87 bonds credited to profit and loss.		
First mortgage bonds payable .....	300,000.00	
Profit and loss surplus .....		2,175.00
To first mortgage bonds purchased .....		302,175.00
To record cancellation of 300 first mortgage bonds due October 1, 1912, and charge to surplus the premium on 87 bonds purchased at 102½.		

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Reserve for sinking fund .....	210,825.00
To profit and loss surplus .....	210,825.00
To close out to surplus the reserve for sinking fund, the bonds, for which the sinking fund was provided, having been purchased and cancelled.	
10/1/12 Cash .....	300,000.00
To first mtge. bonds payable.....	300,000.00
For issue of first mortgage 5% gold bonds dated October 1, 1912, due October 1, 1922, subject to sinking fund, the reserve for which is to be created out of profits.	
12/31/12 Sinking fund .....	6,136.68
To cash .....	6,136.68
Profit and loss surplus .....	6,136.68
To reserve for sinking fund .....	6,136.68
3/31/13 Sinking fund .....	61.36
To reserve for sinking fund .....	61.36
3/31/13 Sinking fund .....	6,136.68
To cash .....	6,136.68
Profit and loss surplus .....	6,136.68
To reserve for sinking fund .....	6,136.68
Profit and loss surplus (interest on bonds) .....	7,500.00
To int. acc. on first mtge. bonds payable....	7,500.00

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WORKING SHEET

<i>Debits</i>	<i>Trial Balance</i>	<i>Adjustments</i>		<i>Balance Sheet</i>
	<i>Sept. 30, 1912</i>	<i>Debits</i>	<i>Credits</i>	<i>Mar. 30, 1913</i>
Land and buildings .....	\$1,275,946.27			\$ 1,275,946.27
Equipment .....	348,727.43			348,727.43
H. W. and motor trucks.	12,872.51			12,872.51
Furniture and fixtures..	15,269.50			15,269.50
Investments .....	200,000.00			200,000.00
Materials and supplies..	65,138.79			65,138.79
Goods in process .....	25,591.46			25,591.46
Finished goods .....	45,468.71			45,468.71
 Cash .....	 68,649.52	 \$ 300,000.00	 (\$ 6,390.00 2,175.00 3,157.05 6,136.68 6,136.68)	 344,634.11
Accounts receivable ....	125,279.34			125,279.34
Notes rec. and int. ....	41,286.39			41,286.39
S/F for 1st mtge. bonds.	207,667.95			210,825.00 12,334.72
1st mtge. bonds pch'd....	89,175.0			
Deferred charges to exp.	12,813.97			12,813.97
 <u>\$2,533,886.84</u>	 <u></u>	 <u></u>	 <u></u>	 <u>\$ 2,525,382.20</u>
 <i>Credits</i>				
1st mtge. bonds .....	\$ 300,000.	300,000.00		\$ 300,00.00
Taxes accrued .....	14,025.00			14,025.00
Salaries and wages acrd.	18,927.34			18,927.34
Accounts payable .....	87,316.75			87,316.75
Notes payable and int..	51,487.63			51,487.63
Int. acc. on 1st mtge. bds.	9,000.00	9,000.00	7,500.00	7,500.00
Res. depn. plant and equip. ....	142,305.12			142,305.12
Res. for sinking fund..	210,825.00	210,825.00		12,334.72
Pfd. C/S issued and out- standing .....	1,000,000.00			1,000,000.00
Com. C/S issued and out- standing .....	500,000.00			500,000.00
P & L—surplus .....	200,000.00			391,486.64
 <u>\$2,533,886.84</u>	 <u></u>	 <u></u>	 <u></u>	 <u>2 525,383.20</u>

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THE COTTON SEED OIL COMPANY

BALANCE SHEET, MARCH 31, 1913

<i>Assets</i>	<i>Liabilities and Capital</i>
Land and bldgs.....\$1,275,946.27	Capital stock (outstanding):
Equipment ..... 348,727.43	Preferred ..... \$1,000,000.00
Horses, wagons and motor trucks ..... 12,872.51	Common ..... 500,000.00
Furniture and fixtures. 15,269.50	Total cap. stock...\$1,500,000.00
Investments ..... 200,000.00	1st mtge. 5% bonds (1922) ..... 300,000.00
Working and trading assets:	Current liabilities:
Materials and supplies ..... \$ 65,138.79	Taxes accrued ..... \$ 14,025.00
Goods in process.... 25,591.46	Salaries and wages accrued ..... 18,927.34
Finished goods ..... 45,468.71	Accounts payable ... 87,316.75
Total working and trading assets ...\$ 136,198.96	Notes payable and interest ..... 51,487.63
Current assets:	Int. acc. on bonds.... 7,500.00
Cash ..... \$ 344,654.11	Total current liabilities ..... \$ 179,256.72
Accounts rec. .... 125,279.34	Reserve for depr. of plant and equip..... 142,305.12
Notes rec. and int... 41,286.39	Reserve for sinking fund ..... 12,334.72
Total current assets .....\$ 508,609.84	P & L—surplus ..... 391,486.64
Sinking fund ..... 12,334.72	Total liabilities and capital ..... \$2,525,383.20
Deferred charges to exp. 12,813.97	
Total assets .....\$2,525,383.20	

PROBLEM No. 15a (PRACTICE)

The following is a trial balance of The National Gelatine Company, September 30, 1912, after closing:

Land and buildings, \$1,537,876.49; equipment, \$384,734.72; horses, wagons, and truck, \$15,296.25; furniture and fixtures, \$20,543.62; investments, \$250,000; materials and supplies, \$56,973.15; goods in process, \$37,195.64; goods in stock (packed), \$54,864.17; cash, \$86,946.25; accounts receivable, \$130,972.43;

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notes receivable and interest, \$51,362.93; sinking fund for redemption of first mortgage bonds, \$416,924.75; first mortgage bonds purchased out of sinking fund (75 at an average price of 103¾), \$77,812.50; deferred charges to operations, \$15,318.79; first mortgage bonds payable, \$500,000 (dated October 1, 1892, due October 1, 1912, interest six per cent, payable April 1 and October 1, last paid April 1, 1912); taxes accrued, \$15,375; salaries and wages accrued, \$16,297.43; accounts payable, \$84,371.57; notes payable, \$61,728.36; interest accrued on first mortgage bonds, \$15,000; reserve for depreciation of plant and equipment, \$171,861.83; reserve for sinking fund, \$422,187.50; preferred capital stock outstanding, \$1,000,000; common capital stock outstanding, \$500,000; profit and loss surplus, \$350,000.

The sinking fund has been accumulated by setting aside an amount scientifically calculated, and the reserve for the sinking fund has been created out of profits. The final deposit to the sinking fund has not been made, but the reserve was increased as usual before closing on September 30. The bonds due October 1 were taken up and cancelled as of that date.

The company issues as of October 1, 1912, a new series of 500 ten-year gold bonds which bear interest at five per cent, have a sinking fund provision, and the reserve for sinking fund as before. Sinking fund deposits are to be made quarterly instead of semi-annually. The amount deposited December 31, 1912, was \$10,227.80. The interest allowed on the deposit by the sinking fund depository to March 31, 1913, was \$102.27. The amount deposited March 31, 1913, was \$10,227.80.

Prepare:

- (a) Journal entries and skeleton ledger accounts affecting the two issues of bonds.
- (b) Balance sheet, March 31, 1913.

## Pennsylvania C. P. A. Examinations of November, 1912

ANSWERS BY R. J. BENNETT, C.A., C.P.A.

The answers which follow have been prepared for the benefit of accountancy students, not merely as answers designed to secure for candidates a passing grade on the C. P. A. examination; consequently in some cases they are somewhat longer than would be required on the official examination. While the members of the Pennsylvania Board have extended every courtesy in connection with the present publication of the questions and answers, the answers submitted reflect the writer's own ideas as to how they should be prepared and not those of the examining board.

Any explanations of the questions deemed necessary are given in connection with the questions themselves and not in this introductory statement; a few comments, however, are in order with reference to the examination itself and to the character of the questions. It will be seen that the questions are divided into two parts, General Accounting and Commercial Law, rather than into the four divisions, Theory of Accounts, Auditing, Practical Accounting, and Commercial Law, which prevail in many of the states. This is commendable, since it is difficult to point out the line of demarcation between the three first captions mentioned. The work of the accountant requires of him a general knowledge of the entire field, though he may or may not specialize on some particular phase of the work, such as cost systems, railroad accounting, accounting for banks and other financial institutions, etc.

The questions cover a large field and clearly indicate that the accountant, to pass them, must be familiar with various lines of business. Instead of submitting only problems which may be worked out by the candidate who is good at figures, it will be seen that the questions are designed to draw out his general knowledge of business organization as well as of accounting systems. In this way the examiners are enabled to determine whether or not the candidate has sufficient knowledge of general accounting systems and different lines of business to justify their giving him a certificate of competency. It might be said for the benefit of prospective candidates, that the study of accountancy alone will not fully qualify them to pass examinations or to become competent accountants. A knowledge of business law, finance, banking, economics, and general business administration is also essential.

The Pennsylvania Examiners are to be commended for the high standards set and maintained, and for requiring of candidates proper qualifications for admission to examination. Their endeavor is to provide standards of admission which will stand the test of experience and in every way maintain the traditions of the accountancy profession.

*Pennsylvania C. P. A. Examination of November, 1912*

At the same time they recognize the rights of persons desiring to enter the accounting profession, and have provided every opportunity for those desiring to make preparation. Their encouragement is constantly being exerted toward the upbuilding of the profession in Pennsylvania. A high school education or its equivalent is required of candidates, and in lieu of an actual accounting practice of three years a certificate of a recognized school of accountancy will be accepted. Schools receiving recognition of the board are required to maintain a high-grade course of study, covering a period of at least three years of four evenings per week.

As a consequence of the known attitude of the examiners, candidates do not rush into the Pennsylvania examinations. Experience has taught them not to do so without first having secured necessary training. It is safe to say, however, that at least 50% of the candidates are successful, thus indicating that they are fully aware of what is before them when they sit for examinations.

The time required for answering the questions is shown in connection with the papers themselves, and, though in one or two cases the time limit seems short, in the majority of cases it is in every way satisfactory, judging, of course, from the writer's point of view.

## GENERAL ACCOUNTING

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### QUESTION I

A company issues \$1,000,000.00 bonds (denomination \$1,000.00 each), dated January 1, 1910, bearing interest at 5% and maturing January 1, 1920. These bonds were sold at 80% of their par value.

The mortgage provides for a sinking fund to be created by annual payments of \$50,000.00, and at December 31, 1911, the balance sheet of the company, among other items, shows the following which relate to these transactions:

Discount on bonds .....	debit, \$ 160,000.00
Trustee of sinking fund .....	debit, 102,000.00
First mortgage bonds .....	credit, 1,000,000.00

On January 1, 1912, the trustee purchased 113 bonds out of the funds in his possession at \$900.00 each, which were cancelled.

State what entries should be made in respect to these transactions; also give your views as to the proper treatment of discount on bonds, both as to when they are purchased and cancelled, as in the foregoing, and when they are not redeemed until maturity.

### ANSWER TO QUESTION I

Bonds are usually sold to or through some banking firm, or else to

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a syndicate of bankers. The manner of their disposal depends upon the size of the bond issue, the condition of the money market, and the stability of the company itself. If the bonds are sold direct to the bankers a definite price is generally paid for them, say 80, 90, or more, as the case may be, and the bankers then sell them to the public or to other banks at a higher price, thereby netting a profit on the transaction. Sometimes the issuing company pays a commission to the bankers for disposing of its bond issue, or it may even sell them over its own counter. In any case there are certain heavy expenses incident to the issuing of bonds, either bond discount, commissions, advertising, or other expenses, and these expenses must be cared for on the books of the company. How shall it be done? The method may be determined by the stability of the company, though, of course, the directors have power to say what plan shall be used.

If the company is financially strong, the entire expense of bond issue may be charged to profit and loss at once, or it may be divided over a period of two or three years; otherwise it is better to spread it over a longer time. It is common practice to amortize or spread such expense over the entire period for which the bonds are to run. In the case under consideration the annual charge would be \$20,000, and it is evident from the terms of the question that this plan has been adopted. Sometimes the bond expense is capitalized, that is, charged up to plant account. This is not good practice if by so doing the property is increased above its true valuation. The discount is governed largely by the company's stability, and the rate of interest which the bonds are to pay. It will be seen in the example given that the annual charge against revenue—interest and bond discount—is \$70,000, or practically 7% on the entire bond issue. It is really nearer to 9% when computed on the actual proceeds realized, \$800,000. If the discount were amortized according to compound interest formulae, a slightly different yearly amount would be charged off, but in the end like results would be obtained. Expenses other than bond discount should, of course, be considered as current charges. This will comprise, in addition to other items, annual commissions to the sinking fund trustee.

The accompanying book entries show the manner of handling bond issues. Duplicating entries are omitted for brevity. The bond discount is to be spread equally over the entire ten years. The purchase of the company's own bonds at 90, after two years, reduces the discount by \$100 on each bond, or \$11,300 on the amount redeemed. This is credited to the Bond Discount account, leaving a balance of \$148,700. The annual amount to be charged off hereafter is reduced to \$185,875.

The duties and powers of the sinking fund trustee are set forth in the trust deed, and the manner of handling such items as the one given in question is usually defined therein. While the trustee is serving the company and must necessarily co-operate in all matters within his province, yet he is the guardian of the rights of the bondholders and must sacredly fulfil the trust so imposed. The sinking fund requirements

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generally specify that all bonds purchased by the trustee shall either be turned over to the company and be canceled or be kept alive in the sinking fund until maturity. They provide also, as a rule, for the purchase of a definite portion of the bonds at specified periods after a given date, at a stated price at or above par. The bonds to be purchased are either chosen by lot and called for redemption or else purchased in the open market at the best price obtainable. The margin of safety for remaining bondholders increases in proportion to the value of bonds redeemed by the company.

No matter what price the bonds were sold for, they must be redeemed at par when due. When the trustee purchases bonds of his own company for investment they are held in the sinking fund until maturity and the interest coupons collected at regular periods. The interest so collected, in addition to the regular annual instalments to the fund, is reinvested by the trustee in the securities of his own company or of other approved corporations. Bonds purchased below par must, of course, be redeemed at par when due; therefore this provides an additional item of profit for the sinking fund. When the company's own bonds are held, however, there is nothing gained by considering the discount as a profit, yet if the bonds are being written up to par on the company's books then a like plan should be adopted by the trustee. It is well to keep the accounts of the company and of the trustee in harmony, though this is not compulsory. It is obvious that if bonds purchased below their face value are written up at par there will be a resulting profit or surplus when the bonds are taken over at maturity. Since the annual instalments of \$50,000 in this example will not amount to the aggregate of the outstanding bonds at maturity, the trustee would be justified in demanding every item of profit obtainable for the benefit of the sinking fund. At maturity the outstanding bonds unprovided for will be funded or else paid out of current funds obtained by means of a temporary loan.

It will be seen by the journal entries, that we have adjusted the Bond Discount account, and have taken over and canceled the redeemed bonds at the price paid by the trustee. This procedure seems advisable. Of course, \$101,700 might have been paid over to the trustee in exchange therefor, but if such a course were followed and all of the bonds redeemed through the sinking fund the trustee would have a large supply of cash on hand at maturity, but no outstanding bonds to pay. In such a case the cash would be turned back to the company and credited to Surplus account. Sometimes a sinking fund reserve is created out of profits, but it does not seem to be required in this example. The accounts affected by these transactions will appear on January 1, 1912, as follows:

Discount on bonds .....	debit, \$ 148,700.00
Trustee of sinking fund .....	debit, 300.00
First mortgage bonds .....	credit, 887,000.00

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ENTRIES ON THE COMPANY'S BOOKS

(1) At time of bond issue, January 1, 1910:

Cash .....	\$ 800,000.00
Discount on bonds .....	200,000.00
To first mortgage bonds .....	\$1,000,000.00

For issue and sale of 1,000 first mortgage  
5% sinking fund bonds, at 80% of the  
par value.

(2) At first interest payment, July 1, 1910, and each six months  
thereafter:

Bond interest .....	\$ 25,000.00
To cash .....	\$ 25,000.00

For payment of bond coupons due today  
and payable at \_\_\_\_\_ Trust Company.

(3) End of first year, December 31, 1910:

Profit and loss .....	\$ 70,000.00
To bond interest .....	\$ 50,000.00
Discount on bonds .....	20,000.00

To close Bond Interest account. To write  
off one-tenth of the bond discount per  
order of the directors.

(4) For deposit with sinking fund trustee:

Trustee of sinking fund .....	\$ 50,000.00
To cash .....	\$ 50,000.00

First deposit of \$50,000 to the sinking fund,  
as per trust deed.

(5) End of second year, December 31, 1911:

Profit and loss .....	\$ 70,000.00
To bond interest .....	\$ 50,000.00
Discount on bonds .....	20,000.00

To close Bond Interest account for year.  
To write off one-tenth of original bond  
discount.

(6) For sinking fund earnings during second year:

Trustee of sinking fund .....	\$ 2,000.00
To profit and loss (or income) .....	\$ 2,000.00

For interest accumulations per report of  
the sinking fund trustee, the first instal-  
ment having earned \$2,000.

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(7) Second deposit to sinking fund end of second year:

Trustee of sinking fund .....	\$ 50,000.00
To cash .....	\$ 50,000.00

Second deposit of cash with sinking fund  
trustee, per trust deed.

(8) For redemption of bonds at 90, January 1, 1912:

First mortgage bonds .....	\$ 113,000.00
To trustee of sinking fund .....	\$ 101,700.00
Discount on bonds .....	11,300.00

Cancellation of 113 bonds purchased this  
day by the trustee at \$900 each, out of  
funds in his possession.

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QUESTION 2

Outline a simple classification of accounts for the operation of a blast furnace (pig iron), giving explanatory text under each account head, and suggesting a proper method for providing for the cost of relining a furnace; also show separately a grouping of the accounts in the order you would suggest to present a monthly statement of profit and loss.

ANSWER TO QUESTION 2

Pig iron consists of large bars of metal or iron after it is separated from the ore and other extraneous matter with which it is mixed when it comes from the mines. The ore is melted or boiled in a large furnace and the molten metal is then run off into molds at necessary periods. The large bars of iron thus molded are called pigs, the raw pig iron, and are ready for transportation to the iron foundries where they are put through further processes and made into different grades of iron. The blast furnace consists of a large cupola or furnace into which the ore, coke or coal, and limestone are thrown. The heat within the furnace is fanned by air drafts or blasts from the bottom usually forced in by ordinary revolving fans, and this force or blast often causes the flames to rise many feet above the top of the furnace, a sight which is familiar to persons who have seen blast furnaces in operation.

The contents of the furnace, being raised to an intense heat by the combustion of the fuel, are brought into a softened state, the limestone parts with its carbonic acid, and, combining with the earthly ingredients of the ironstone, forms with them a liquid slag, whilst the separated metallic particles, descending slowly through the furnace, are deoxidized and fused. In their passage they imbibe a portion of carbon, and at last settle down in the hearth, whence they are run off into pigs about every twelve hours, or oftener; the slag being lighter, floats upon the

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surface of the liquid metal and is constantly flowing out over a notch in the dam-plate, level with the top of the hearth.

The blast furnaces are strongly built to withstand the tremendous heat and pressure within. The lining is composed of fire brick and fire clay and requires replacement every two or three years. The blast furnace itself will last from ten to fifteen years or more, according to the strength of the structure. The furnace structure is usually from 30 to 50 feet high and in some cases even higher, and the capacity is anywhere from 5,000 to 20,000 cubic feet or more.

### CLASSIFICATION OF ACCOUNTS

#### *Real Estate and Buildings*

Including the land, buildings and plant at the location of the blast furnaces, also provision for storing materials and pig iron.

#### *Ore Mines and Quarries*

Consisting of mines from which the iron ore is obtained, and the equipment. This might include also the limestone mines or quarries.

#### *Blast Furnaces and Equipment*

This includes the various blast furnaces and the equipment required in their operation.

#### *Employees' Tenement Houses*

These belong to the company, but are rented to the workmen, the rent being either paid in cash or deducted from the pay envelopes.

#### *Ore on Hand*

This includes the ore as it is brought from the mines in its raw condition before going into the blast furnace. A fairly large stock is kept on hand at the furnaces.

#### *Coke and Coal on Hand*

This includes the supply of coal or coke, or both, required for use in the blast furnaces. It is the chief element required for fuel purposes.

#### *Limestone on Hand*

This supply of limestone is required for use in the furnaces. It is used with the ore and coke and is a valuable ingredient in the smelting process. It helps also to form a slag on the surface of the molten metal. Other lesser materials are frequently used also.

#### *Tools and Supplies*

This consists of the loose tools and supplies of various kinds used by the employees at the plant and furnaces.

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***Freight Inbound***

This includes the freight charges on ore, coke and limestone received from the mines and coke plants. It should be included as part of the cost of materials.

***Labor in Handling Materials***

This includes the pay roll of men at the mines and at the plant in connection with the handling of materials.

***Labor at Furnaces***

This includes the labor of men required in operating the blast furnaces.

***Repairs and Maintenance***

This includes repairs of various kinds around the buildings, plant and furnaces.

***Light, Heat and Power***

This includes the expenses of light, heat and power around the plant, buildings and furnaces, including electric power expenses.

***Yard Expenses***

This includes the expense of switching cars and the transfer of materials and pig iron.

***Cost of Blowing***

This includes the expense attached to providing the air draft or blast used in fanning the furnaces.

***Laboratory Expenses***

This consists of expenses of the laboratory in experimenting, testing and examining materials, pig iron, etc.

***General Manufacturing Expenses***

This includes the general expense incurred around the plants and furnaces.

***Taxes and Insurance***

These include the general taxes and insurance charges at the plant. A division may be made as between manufacturing and administrative expenses if desired.

***Re-lining Blast Furnaces***

This consists of the expenditures connected with the blast furnaces which require re-lining every two or three years, as explained under Reserve account.

***Reserve for Re-lining Blast Furnaces***

The furnaces are lined with fire brick and fire clay and require re-

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lining each two or three years. To provide for this a yearly reserve of about 25 cents per ton of output is set aside, thus equalizing the yearly manufacturing charge for this purpose. Outlays for re-lining the furnaces, as shown in the preceding account, are charged against this Reserve account at the end of the year. While the fires are out other repairs are attended to also.

### *Reserve for Depreciation*

This reserve is created to care for and replace buildings, plant and furnaces. Annual appropriations are made to it from operating expenses in the usual way.

### *Pig Iron Account*

This includes the pig iron on hand at the beginning of the year plus additional pig iron manufactured during the year.

### *Sales of Pig Iron*

This includes the aggregate sales of pig iron from the blast furnaces, and it may include purchased pig iron also.

### *General and Administrative Expenses*

These are shown in the accompanying grouping of accounts.

### *Share and Bonded Capital*

These include the accounts for capital stock, outstanding bonds and mortgages.

### *Surplus and Undivided Profits*

The surplus account and the undivided earnings.

### *Current Asset Accounts*

Including cash, accounts receivable, notes receivable, etc.

### *Deferred Charges to Operating*

Including pay roll, interest, taxes, bond discount, insurance, etc.

### *Current Liabilities*

Including accounts for accounts and notes payable, accrued pay roll, accrued charges, etc.

### *Reserve Accounts*

Including reserve for re-lining blast furnace, depreciation, bad debts, workmen's insurance, workingmen's liability fund, sinking fund, etc.

### **ARRANGEMENT OF PROFIT AND LOSS ACCOUNT**

#### **For the Operation of a Blast Furnace Manufacturing Pig Iron \***

\* Additional accounts are frequently found in this business, and in some cases even fewer than shown herein. The above accounts may, of course, be arranged and subdivided to meet individual needs or to suit the taste of the accountant.

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*Earnings*

Sales of pig iron.  
Sales of by-products, if any.  
Income from other sources.  
Rents received.

*Operating Expenses*

Materials used:

Ore used ..... tons  
Coke ..... tons  
Coal ..... tons  
Limestone ..... tons  
Other materials and supplies.

Labor charges:

Labor operating furnaces.  
Other direct labor, if any  
Labor of handling materials (or add to material cost).

Direct operating charges:

Repairs and maintenance.  
Light, heat and power.  
Yard expenses and car service.  
Cost of blowing furnaces.  
Laboratory expenses.  
General furnace expenses.  
Taxes and insurance.  
Reserve for re-lining blast furnaces.  
Reserve for depreciation.  
Royalties.

Trading and selling expenses:

Pig iron on hand first of year.  
Pig iron manufactured, at cost.  
Pig iron purchased, if any.  
Less inventories at end of year.  
Salaries and commissions, salesmen.  
Traveling expenses, salesmen.  
Advertising.  
General selling expenses.  
Discounts and allowances.

General and administrative expenses:

General office expenses.  
Traveling expenses of directors.  
Depreciation of office equipment.  
Taxes and insurance.  
Stamps, telegrams, stationery.  
Bad debts written off.  
Discount and interest.  
Interest on bonded debt.  
General repairs and maintenance.

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Other expenses and charges.  
Federal corporation tax.  
Workmen's liability fund.  
Net profit.

**QUESTION 3**

In a large manufacturing and trading corporation adequately organized, describe fully the methods and procedure on which the disbursing officer bases his assurance that invoices about to be paid are correct in every respect.

**ANSWER TO QUESTION 3**

The disbursing officer has charge of the cash disbursements, all of which must have his approval before settlements can be made, except, perhaps, in the case of extraordinary or capital investments which usually require the approval of higher officials. He may be known as auditor, auditor of disbursements, disbursing officer, financial secretary, treasurer, or assistant treasurer.

Before an invoice is paid, the disbursing officer must know whether the goods have actually been received, and if so whether they are in accordance with the purchase order in quantity, quality, price, etc. He, of course, depends upon others to supply him with this information. All of this necessitates a careful inspection of the goods by the receiving department, and a comparison with the original order by the purchasing department as to quantity, terms and prices. Extensions, discounts, due dates, departmental and account subdivisions, and general accuracy are looked after by the auditing or accounting department. Each invoice bears the signature of the persons making inspection and comparisons, so that the disbursing officer is assured that it is correct in every detail before payment is made. Sometimes the checkings and comparisons are made on copies of the purchase order and not on the invoices. If the voucher method is in use, each voucher will contain the signature of two or more persons who are authorized to pass upon invoices, as the purchasing officer, auditor or superintendent, and finally the signature of the treasurer to the voucher cheque. The cheque may even be countersigned by another official. The original invoice, or a copy of the purchase order, may, if desired, be attached to the voucher for the information of the disbursing officer. The order of procedure may be summarized as follows:

Requisition on purchasing agent for material by stores clerk.

Purchasing agent places all orders for purchases.

Purchase order may consist of the following:

- Original order, sent to vendor.
- Purchasing department duplicate.
- Receiving clerk's duplicate.
- Stores clerk's duplicate.
- Auditing department duplicate.

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The purchasing department duplicate is kept on file under the name of the vendor, and all notations or correspondence noted thereon. It is used for checking the invoice when it arrives, and is then filed away for future reference.

Receiving clerk's duplicate. Is filed by the receiving clerk until the goods are received, then the items are checked against the copy, after which it is released to the purchasing agent.

Stores clerk. When the goods reach him he checks his copy as to quantity and quality, after inspection has been made, and enters the details on his stock cards. The copy may then be released to the purchasing agent.

Auditor's copy. The orders enable the auditing department to keep track of the obligations incurred so that due provision for finances may be made. This copy provides a check on all purchases, and enables the auditor to compare with the invoices or vouchers if desired.

The purchasing agent is advised of the receipt of goods by return of the purchase order duplicates, duly checked, from the receiving clerk and the stores clerk. He then notes any changes, if necessary, and passes the invoice to the auditing or accounting department, having the following placed on by rubber stamp.

Date invoice received.

Date goods received.

Price O. K.—(initials of inspector).

Quality O. K.—(initials of inspector).

Quantity O. K.—(initials of inspector).

Charge.

The invoice is checked as to extensions by the auditing department.

Voucher is signed by the auditor.

Payment is made by the disbursing officer.

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QUESTION 4

You are instructed to examine and report upon the accounts of an electric lighting company in Upper Woodland, Pa., on behalf of a banker with a view to his purchasing and operating the property.

The company supplies light and power to manufactories, the municipality, miscellaneous business establishments, residences, etc., under the usual varieties of contracts.

(1) Describe fully the information usually required for a complete report.

(2) Upon arriving on the field you find that the only records of the company's financial operations are a bank account, a meter readings book, copies of bills rendered to consumers but no consumers' ledger, miscellaneous paid and unpaid bills for purchases and expenses, and capital stock books. The principal owner of the company being in the supply and contracting business has financed and constructed the property, but his operations in respect of same have not been spread on the company's accounts

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with exception of partial payments on account, which appear in the bank account. Describe fully your procedure in procuring the necessary information for your report.

### **ANSWER TO QUESTION 4**

This question is divided into two parts. The candidate is called upon to tell how he would conduct an examination of a business for the benefit of an intending purchaser, and to tell what information would usually be required for the completion of his report. The selection is that of an electric lighting company, thus necessitating the investigating of underlying conditions peculiar to that particular industry. In answering the first part we will assume that the accounts and records of the company under examination are in order and available.

I. Before purchasing the properties and franchise of the company, the banker is desirous of finding out whether or not the investment is a good one, and whether it will pay and continue to pay an adequate return upon the investment, and in addition to this enough to pay for the risk assumed and time spent in connection with the administration. The accountant is called upon to make a special examination of the books, accounts and records in order to supply the banker with all or part of the information desired, or at any rate with as much as can possibly be determined by such an examination. This should be supplemented by the report of engineers as to conditions that would not come within the accountant's professional skill. The following information would, no doubt, be required and of course should be embodied in the accountant's report, accompanied by suitable exhibits and statements as compiled from the books themselves. It will be noted that some of the points shown in the list could be supplied only by engineers and appraisers.

#### **Information Required for a Complete Report**

- (1) A balance sheet showing the correct status of the company at the indicated time.
- (2) A statement of earnings and expenses for the past three or five years, showing the conditions for each year separately. This should include the gross and net earnings.
- (3) The average earnings, expenses, etc., for the period under consideration with percentage ratios indicating the net results as compared with sales, cost of production, etc.
- (4) Correct divisions of income from sales as between light and power according to the divisions mentioned; namely, manufactures, municipalities, miscellaneous business establishments, residences, etc.
- (5) It would be advisable, if possible, to determine by the allocation of expenses to the separate divisions whether or not they are all profitable, and, if not, whether the rate is too low or the expense of production too high.
- (6) Data as to the increase or decrease of business, or expenses, dur-

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ing the period and whether or not the sales have been unduly inflated during the last year.

(7) The aggregate current produced and the cost per unit of production (one kilowatt), also what part of it was sold for each of the various activities indicated.

(8) The amount of authorized, subscribed, and paid up capital; also the extent of bond issues authorized and outstanding. In this connection the charter, by-laws, stock books, minute book, legality of bond issues, trust deed, etc., should be carefully examined.

(9) The amount of general and administrative expenses in addition to the expenses of production, analyzed and accompanied by suggestions for the possible reduction of operating and general expenses.

(10) The condition of the plant, equipment, lines, etc., and their present value by appraisement.

(11) The terms of the various contracts for light and power and the time for which they are to run. It will be necessary to determine whether their tenure is for a time sufficiently long to justify profitable returns therefrom. Whether or not the contracts with municipalities call for free light or power should be clearly shown.

(12) A report as to competition and the probability of contracts being renewed on favorable terms at maturity.

(13) The conditions and life of the franchise under which the company is conducting operations should have careful consideration.

(14) Manner of generating power, whether by fuel or hydraulic, and whether or not the water power continues throughout the entire year.

II. In answering the second part of the question we are concerned in determining the manner of procuring information necessary for the report. Let us assume that the report will contain the information just outlined if it can be obtained, but, if not, such information as can be secured from the records. It then becomes a matter of compiling data from various sources, including the records of the company and the private books of the principal owner. Between the two, no doubt all or most of the required data can be obtained, and all or part of the remainder from other sources. The following steps, though not necessarily in the order given, should be taken:

(1) Determine from the meter readings book the aggregate amount of electricity manufactured. Divide it, if convenient, into the various divisions of light, power, etc., mentioned above.

(2) Determine from the meter readings book and copies of bills rendered to consumers the amounts charged or chargeable to them. These should be computed and added at the sale price per unit in order to determine the aggregate sales of current during the period under review.

(3) Determine cash receipts as follows:

Aggregate of bank deposits per bank account.

Bills for purchases and expenses paid in currency.

Probable payments of currency for which no receipts are available.

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Advances by the proprietor for company purposes.

Currency on hand undeposited.

- (4) Determine cash payments as follows:

From bank account, being cheques canceled or outstanding.

Comparison of paid bills and canceled cheques.

From bills paid in currency.

From payments advanced by the proprietor.

From probable payments for which no receipts are available.

(5) The amount of cash received from sales of electricity can be determined from received duplicates of bills to consumers, in case such received bills are not obtainable, then from the cash receipts compiled per above outline. Receipts from all known sources other than sales, as from sales of stock, advanced by the proprietor, etc., deducted from the aggregate receipts, will give the amount received from consumers.

(6) To determine the true condition of consumers' accounts, set up an account for each. From the duplicates of bills rendered, all charges to the various consumers can be entered up. Presuming that these duplicates are canceled as each bill is paid, it is an easy matter to enter up the receipts from the various consumers. The bills unpaid can, of course, be easily obtained.

(7) If the cash received from the consumers is not recorded on the duplicate bills as mentioned above, it will be necessary to compile the charges to consumers and submit statements to them for verification or alteration. By presenting their unpaid bills or other evidences of payment it can be seen whether or not all bills have been paid. Letters might be sent to the consumers asking for their co-operation in arriving at the correct status of accounts receivable, and for their receipted bills.

(8) Comparison of the unpaid bills will indicate the amount owing for purchases and expenses, all of which should be properly classified under operating expenses. Careful inquiry should be made for liabilities for which no bills have been received.

(9) Paid bills on file will give the amount paid for purchases and expenses, which can also be classified. The bank book should be balanced and canceled cheques returned. Reference should be made to the cheque book record and canceled cheques for information regarding payments. If the bank account has been kept in the proprietor's name, then his personal cheques should be examined in determining this information.

(10) Current produced but not billed to consumers should be noted and listed as waste production. This should be considered in connection with future operations.

(11) The capital stock account can be checked from the certificate book if certificates have been issued, from the subscription list if available, from the bank deposits, and from vouchers supplied by stockholders who have paid.

(12) An inventory of all properties and supplies should be made.

(13) From the data compiled a statement of earnings and expenditures should be made, and a statement of assets and liabilities.

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**QUESTION 5**

What recommendations would you make for preventing fraud in the following departments of a bank:

1. Depositors' accounts.
2. Loans.
3. Revenue and Expense accounts.

Discuss fully your recommendations and give the reasons in support of them.

**ANSWER TO QUESTION 5**

Fraud means an act or course of deception deliberately practised with the view of gaining a wrong or unfair advantage; deceit; trick; an artifice by which the right or interest of another is injured. (*Century Dictionary*.)

When conducting an audit the auditor must be constantly on the watch to see that fraud or deception has not been practised, and, if it has, that it may be detected. Of course fraud or deception, stealing or embezzling may go on for some time in a bank before it is discovered, but there is little possibility of its being carried on to any considerable extent by an employee of the bank without the assistance of one or more of his coworkers, especially where proper supervision is maintained. In order to preclude the thought of wrong-doing from the minds of bank employees, the management should take every precaution to remove temptation from their path. This can be done in many ways, and especially by requiring constant changes of occupation among the staff. In other words, the internal check or regular bank routine may be so arranged as to forestall the possibility of going wrong. "An ounce of prevention is worth a pound of cure."

(1) Depositors' accounts. Fraud in this department may be prevented in a number of ways. Duplicate ledgers may be kept by the different clerks working independently of each other, but this involves double work. The plan of changing ledgers from time to time is a good one. Under this plan the ledger keepers are changed from one ledger to another each month, and from six to ten months may intervene before a clerk gets back again to the ledger upon which he started. It is a well-known fact that speculations usually continue over a considerable time before they are detected; therefore this method of changing ledgers nips in the bud any plans that the ledger keeper may have had in respect to falsifying one or more accounts. Even in a small bank, where few ledgers are used, this plan of changing is commendable. The amount of deposits, withdrawals and balances should be compared every day with the general bookkeeper's controlling accounts and with the figures of the receiving and paying tellers. The individual ledger keeper, since he does not handle cash, cannot benefit to any great extent by the falsification of accounts without working in harmony with the depositor; therefore to prevent this from happening, his duties should be changed fre-

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quently. A good plan is to render statements monthly to depositors, a practice which is now used quite largely among leading banks. At least one large bank in Philadelphia keeps duplicate accounts of depositors made up by an entirely different force of clerks. This second set of accounts is contained on sheets which are torn out monthly and sent to depositors. This obviates the necessity of making a third copy at the time of balancing the pass books. In addition to the precautions mentioned, careful supervision should be exercised and regular audits maintained from time to time by independent accountants.

(2) Loans. The department of loans is closely allied with the department of depositors' accounts. Indeed the bank's loans usually have a corresponding entry in the accounts of depositors and any increase or decrease in the loan account is reflected in the individual deposits, but of course the deposits may be materially reduced without affecting the amount of loans. Much of the precaution, therefore, that has been advised in connection with the individual accounts for the prevention of fraud is applicable to the department of loans, and in any case a careful internal check and constant supervision are imperative. If possible, the plan of having each loan or discount pass through the hands of two or three persons prevents the possibility of collusion. For nearly every loan there is a corresponding credit to a depositor's account, thereby necessitating in itself a double check in being handled by two departments. This, supplemented by the internal check already mentioned, should prevent the possibility of fraud. Care must be taken to see that all discounts of commercial paper are properly indorsed and contain the required number of names, also that they are genuine in every particular. In connection with collateral loans, care must be taken that the collateral is sufficient to cover the loan, that it is properly assigned to the bank, and that it is fully covered with a power of attorney to sell for the satisfaction of the loan in case of necessity. The securities received should be checked by two or more persons and finally placed in the custody of some responsible official other than those who keep records of loans. All loans and discounts should be made under the direction of the cashier of the bank, and a careful supervision should be kept over collateral securities. Frequent inspection of securities should be made by the directors or committee of directors and comparisons made with the register of loans and discounts.

(3) Revenue and Expense accounts. To prevent fraud in these accounts is a matter of supervision for the purpose of preventing excessive running expenses, poor loans, injudicious investments, etc. Considerable outlay may have been made for running expenses without due consideration of the rights of stockholders. Efficiency in management should be one of the prerequisites in the conduct of the bank's affairs, and this involves the reduction of administrative expenses to a minimum. Care should be exercised in figuring interest and discount and in considering accrued interest on loans and securities. The safe plan is to have all revenues in respect to interest, discount, collection, and exchange computed by at least two persons, and thus provide the double check

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upon income. The sources of income from a bank are from interest and discount, collection and exchange, commissions, sale of bank drafts, etc. The expenditures are mostly for salaries, rent, interest, for collection of paper, and the numerous other expenses incidental to any business undertaking. To audit the revenue and expense accounts of any concern necessitates an examination into the entire scheme of business, and to prevent fraud in connection therewith necessitates constant supervision and care on the part of the bank officials, reinforced by occasional examinations of competent accountants. All outlays for salaries, expenses, etc., should be verified by at least two responsible officials. Careful scrutiny of the "over and short account" should also be a regular part of the routine of inspection.

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QUESTION 6

(a) Outline the Revenue and Expense accounts of a life insurance company and their proper treatment at annual closing periods.

(b) In the annual report of a life insurance company to the Insurance Department of Pennsylvania, what is comprised under the captions:

"Non-Ledger Assets."

"Non-Ledger Liabilities."

ANSWER TO QUESTION 6

(a) The life insurance company, being in the business of selling insurance to individuals, derives most of its revenue from premiums paid on policies. The premium cannot all be taken as profit for the year in which it is received, however, since a required portion of it must be reserved each year so that at maturity or at the death of the insured there will be, according to averages, enough accumulated to settle the claim. As a result, after taking out the amount required by law to be set aside as reserves the balance is set aside as earnings. To this is added income from other sources as shown below. The expenses are listed as "disbursements," and are deducted from the total income, resulting in the income or net profit of the company for the year. In the case of a "stock company" this net income belongs to the stockholders and may be taken out in dividends after providing an adequate amount of surplus. In a "mutual company" all profits belong to the policy holders and must be apportioned to the policies in force. This serves to reduce the annual premium, or it may be permitted to accumulate for the benefit of the insured. The net earnings then are credited to the various fund accounts for the benefit of policy holders, instead of being paid to stockholders as in the case of a stock company.

The following outline of accounts has been copied, with some modifications from the printed annual report required by the state of Pennsylvania. The report itself is not always in harmony with the accounts of the company's ledger. It requires first of all the amount of paid up capital on net ledger assets at the beginning of the year, to which is

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added the total increase for the year. From this total is deducted the total disbursements for the year, the resultant balance being the net assets at the time of reporting.

### **INCOME**

First year's premiums (less re-insurance).  
Surrender values.  
Renewal premiums (less re-insurance).  
Interest on mortgage loans.  
Interest on collateral loans.  
Interest on bonds.  
Interest on premium notes, policy loans or liens.  
Interest on deposits, debts, etc.  
Rent received, including occupancy of own building.  
From other sources.  
Agents' balances previously charged off.  
Profit on sale of properties and investments.  
Increase (if any) in book value of properties and investments.  
Total income.

### **DISBURSEMENTS**

For death claims.  
Mutual endowments.  
Premium notes voided by lapse.  
Surrender values paid, or applied otherwise.  
Dividends paid, or applied otherwise.  
Expenses of investigating settlement of claims.  
Legal expenses.  
Paid for claims on supplementary contracts.  
Dividends and interest on above.  
Interest on dividends paid stockholders.  
Commissions to agents.  
Commuted renewal commissions.  
Compensation of managers and agents.  
Agency supervision and traveling expenses.  
Branch office expenses and salaries.  
Medical examiners' fees and inspection of risks.  
Salaries and compensation at home office.  
Rent, including occupancy of own building.  
Advertising, printing, stationery, postage, telegraph, etc.  
Furniture and fixtures.  
Repairs and expenses.  
Taxes on real estate.  
State taxes on premiums.  
Insurance department licenses and fees.  
Other licenses, fees and taxes.

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Other disbursements.

Agents' balances charged off.

Loss in sale of properties and securities.

Decrease (if any) in book value of properties and investments.

Total disbursements.

Balance, net income.

(b) Non-ledger assets and liabilities are those that do not appear on the ledger at the time of reporting, and are as follows:

Non-ledger assets:

Interest due and accrued on mortgages.

Interest due and accrued on bonds.

Interest due and accrued on collateral loans.

Interest due and accrued on premium notes, policy loans or liens.

Interest due and accrued on other assets.

Rents due and accrued on company's property on lease.

Total interest and rents due and accrued.

Market value of real estate over book value.

Market value (not including interest) bonds and stocks over book value.

Due from other companies for losses or claims on policies of this company, re-insured.

Gross premiums, on new and renewals, due and unreported on policies in force at time of report (less re-insurance premiums).

Gross deferred premiums, new and renewals, on policies in force at date of report (less re-insurance premiums).

Deduct "loading" charges from the last two.

Non-ledger liabilities:

Most of the liabilities of a life insurance company are non-ledger accounts, the largest of which are the reserves. Some of them are as follows:

Insurance reserves, per actuarial department.

Liabilities on policies canceled.

Claims for death losses, not yet paid, etc.

Accrued charges of various kinds.

Accrued taxes, salaries, medical fees, etc.

Commissions due, accrued.

Advances by officers or others.

Unapportioned surplus.

Miscellaneous liabilities.

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QUESTION 7

You are retained by the prospective purchaser of a business to make an examination of the accounts covering a period of five years ended December 31, 1911.

The vendor has furnished the following statements to the prospective purchaser:

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Gross profits—yearly average .....	\$315,000.00
Expenses—yearly average .....	220,000.00
Net profit .....	<u>\$ 95,000.00</u>

Also balance sheet as follows:

Assets :

Cash .....	\$ 20,000.00
Accounts receivable .....	250,000.00
Bills receivable .....	50,000.00
Merchandise on hand as inventoried .....	500,000.00
Deferred charge for commissions due salesmen...	<u>10,000.00</u>
Total .....	<u>\$830,000.00</u>

Liabilities :

Accounts payable .....	\$120,000.00
Bills payable .....	200,000.00
Accrued commissions .....	10,000.00
Capital .....	<u>500,000.00</u>
Total .....	<u>830,000.00</u>

You find from the books that the following items constitute the entries in the profit and loss account for the period:

	Gross Sales		Selling Expenses
1907 .....	\$1,000,000.00	1907 .....	\$ 175,000.00
1908 .....	900,000.00	1908 .....	125,000.00
1909 .....	1,250,000.00	1909 .....	160,000.00
1910 .....	1,000,000.00	1910 .....	115,000.00
1911 .....	1,000,000.00	1911 .....	115,000.00

	Cost of Goods Sold		Administrative and Gen'l Exp.*
1907 .....	\$ 650,000.00	1907 .....	\$ 100,000.00
1908 .....	600,000.00	1908 .....	95,000.00
1909 .....	925,000.00	1909 .....	80,000.00
1910 .....	700,000.00	1910 .....	75,000.00
1911 .....	700,000.00	1911 .....	60,000.00

Losses incurred through failure to collect sundry debtors' accounts during the last three years, amounting to \$15,000.00, \$45,000.00, and \$65,000.00, respectively, were charged to the proprietor's capital account.

The terms under which the business is to be sold are based on the value of the net assets at December 31, 1911, plus an amount equivalent to one-half of the net profit for the five years. On this basis the vendors have asked for \$737,500.00.

Write such a report as you would submit to your client (using the figures and other information contained in this question), with the proper

\* Gradual reduction of administrative expenses effected by proprietor taking smaller compensation for his own services each year.

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exhibits and comments upon them as to features which would be of interest to your client as a purchaser of the business.

**ANSWER TO QUESTION 7**

This is an excellent question and replete with details. The statement of a going business has been given to a prospective purchaser, and the candidate is retained by him to make an examination of the accounts for five years in order to determine the present condition of the concern and its true earnings for the period under review. This special examination or investigation is not an audit and does not necessarily include the usual details required in performing an audit. A careful review is required, however, of the sales, purchases, expenses, net earnings, etc., for the five years, and a careful analysis made of the results obtained. This information should be set forth for the benefit of the client in clearly prepared exhibits or statements, accompanied by an explanatory letter or report. The exhibits and report given herewith indicate how they should be prepared, but of course they may, if desired, contain more or fewer details. The wording of the report will depend largely upon the ideas and tastes of the accountant who makes it, but in any case full and detailed information must be supplied to the client. The report given could be improved, perhaps, by careful analysis of percentages and other items of comparative interest shown in the accompanying exhibit of earnings and expenses. The figures presented, however, exhibit information which the client may make use of for further deductions if desired, and any student sufficiently interested to do so could add materially to the information by making further analytical additions to the report. If desired, another exhibit might be made up showing the results as determined from the books before any adjustments are made.

**REPORT AFTER EXAMINATION OF BUSINESS**

Philadelphia, January 15, 1913.

Mr. George W. Henderson,  
Philadelphia, Pennsylvania.

Dear Sir:

I have the honor of submitting the following information as the result of my examination into the condition and earnings of the business conducted by Mr. Jas. W. Bannermann.

The results of my findings are set forth in the accompanying statements in conjunction with the details and explanations contained herein. The figures submitted by the vendors have been modified considerably, and I find that the purchase price based on the net assets plus one-half of the profits for the past five years should be \$618,750.00, and not \$737,500.00, as determined by him. The statements referred to are as follows:

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*Exhibit A*—Adjusted balance sheet showing the assets and liabilities of Jas. W. Bannerman as on December 31, 1911.

*Exhibit B*—Comparative statement of earnings and expenses for the five years ended December 31, 1911.

### *Adjustment of Balance Sheet*

The net assets or net capital of the business has been reduced from \$500,000, as given in his balance sheet, to \$462,500.00 as per my Exhibit A shown herewith. The adjustments are as follows:

Net capital of concern as submitted .....	\$500,000.00
From which deduct:	
5% of accounts receivable for possible bad debts ..	\$12,500.00
Merchandise inventory reduction .....	25,000.00
	<hr/>
Net capital of firm .....	\$462,500.00

The remaining assets and the various liabilities I find to be as represented. The expenses and net profits submitted by the vendor, however, have undergone considerable modification as you will see by the appended adjusted profit and loss statement, marked Exhibit B.

The statement of average gross profits, expenses and net profits submitted by Mr. Bannerman is not correct, and instead of there being an average net profit of \$95,000, I find it to be only \$62,500. I have carefully examined the books and accounts for the past five years and have set forth the entire data in the accompanying statement. The results may be summarized as follows:

### *Summary of Business for Five Years*

Gross sales .....	\$5,150,000.00	Average	\$1,030,000.00
Cost of sales .....	3,575,000.00	Average	715,000.00
Gross profit .....	\$1,575,000.00	Average	\$ 315,000.00
<hr/>			
Less expenses:			
Selling expenses .....	600,000.00	Average	138,000.00
General expenses .....	572,500.00	Average	114,500.00
Total expenses .....	\$1,262,500.00	Average	\$ 252,500.00
Net profit .....	\$ 312,500.00	Average	\$ 62,500.00

The sales have continued without much fluctuation during the five years, thus indicating that the business is well established and enjoys a substantial patronage. This is worth considerable to you in your estimate of future earnings. The selling expenses have not varied to any great extent, but the general and administrative expenses have been gradually reduced from \$100,000.00 in the first year to \$60,000.00 in the fifth. The yearly reductions were \$5,000, \$20,000, \$25,000, \$40,000 respectively. This reduction, however, is effected by Mr. Bannerman's having taken smaller

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compensation for his services each succeeding year. Yet, his drawings for salary represent a fair average during the period under consideration, and I am therefore allowing the results to stand as recorded.

By an examination of the accompanying comparative statement, you will see the amount of sales, expenses and profits from year to year, and the resulting percentage rates in connection therewith. The need of an efficient credit system is apparent, from the fact that during the past three years \$125,000.00 has been lost through failure to make collections. This entire amount has been charged off to the proprietor's capital account and therefore was not included in the statement of profits and expenses submitted by him. While this manner of disposing of said losses made no difference in his final net capital, yet the omission from the profit and loss account results in a false report of net earnings.

In order to present a conservative statement, I have deducted 5% of the accounts receivable for possible losses in making collections, and have reduced the merchandise inventory by \$25,000. Commissions owing to salesmen are carried among the assets as a deferred charge against sales. I find that these are allowed on orders, taken by salesmen to be filled during the coming year.

Let us summarize the matter in a concrete form for final consideration. The terms of sale are on the basis of net assets as on December 31, 1911, plus one-half of the net profit for the five years. On this basis we have the following:

*Purchase Price of Business Determined*

Net profit of business 1907 to 1911 .....	\$312,500.00
One-half net profit .....	\$156,250.00
Net assets as on December 31, 1911 .....	462,500.00
Adjusted purchase price .....	\$618,750.00

This amount of \$618,750 is \$118,750 below the price asked by the vendors, but for an established business such as this I feel that it is very conservative. If the purchase price were based upon the average net profits alone, their capitalization on a 10% basis would give a capital valuation of \$625,000.00. On an 8% basis, \$781,250. The true average of profits, however, has been considerably reduced because of the heavy losses in accounts receivable.

In my judgment, this report and the accompanying exhibits set forth the true conditions of the business under consideration.

Respectfully yours,

R. J. BENNETT,  
Certified Public Accountant.

**EXHIBIT A**

**ADJUSTED BALANCE SHEET**

Of James W. Bannerman, as on December 31, 1911

*Assets—*

Cash .....	\$ 20,000.00
Accounts receivable .....	\$250,000.00

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Less 5% for bad debts .....	<u>12,500.00</u>	
Bills receivable .....		<u>237,500.00</u>
Merchandise, inventoried .....	<u>\$500,000.00</u>	<u>50,000.00</u>
Less 5% deduction .....	<u>25,000.00</u>	
Deferred charges for commissions due salesmen .....		<u>475,000.00</u>
		<u>10,000.00</u>
Total assets .....		<u>\$702,500.00</u>
 <i>Liabilities</i> —		
Accounts payable .....		<u>\$120,000.00</u>
Bills payable .....		<u>200,000.00</u>
Accrued commissions .....		<u>10,000.00</u>
Total liabilities .....		<u>330,000.00</u>
Present net capital .....		<u>\$462,500.00</u>

EXHIBIT B

COMPARATIVE STATEMENT SALES, EARNINGS AND EXPENSES FOR FIVE YEARS  
ENDED DEC. 31, 1911  
Of James W. Bannermann

	1907	1908	1909	1910	1911	Total
<i>Income</i>						
Gross sales .....	\$1,000,000	\$900,000	\$1,250,000	\$1,000,000	\$1,000,000	\$5,150,000
Less:						
Cost of goods sold.....	650,000	600,000	925,000	700,000	700,000	-
Gross profit .....	350,000	300,000	325,000	300,000	300,000	1,575,000
Ratio to sales .....	35%	33.3%	26%	30%	30%	30%
<i>Business expenditures</i>						
Selling expenses .....	175,000	125,000	160,000	115,000	115,000	600,000
Ratio to sales .....	17.5%	13.8%	12.8%	11.5%	11.5%	13.3%
Administrative and general expenses .....	100,000	95,000	80,000	75,000	60,000	410,000
Ratio to sales .....	10%	10.5%	6.4%	7.5%	6%	7.9%
Bad debts written off to proprietor's account .....			15,000	45,000	65,000	125,000
Reserve for bad debts 5% of \$250,000 .....					12,500	12,500
Inventory reduction .....					25,000	25,000
Total expenses .....	275,000	220,000	255,000	235,000	277,500	1,262,500
Ratio to sales.....	27.5%	24.4%	20.4%	23.5%	27.75%	24.5%
Net profit .....	75,000	80,000	70,000	65,000	22,500	312,500
Ratio to sales .....	7.5%	8.8%	5.6%	6.5%	2.25%	6.6%

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*Summary of Five Years*

Gross sales .....	\$5,150,000.00	Average	\$1,030,000.00
Cost of sales .....	3,575,000.00	Average	715,000.00
Gross profit .....	1,575,000.00	Average	315,000.00
Expenses .....	1,262,500.00	Average	252,500.00
Net profit .....	312,500.00	Average	62,500.00

**QUESTION 8**

Describe methods for determining on behalf of the insurance companies the value of a stock of merchandise on hand at the date of a loss by fire in a trading establishment under each of the following conditions:

1. Where inventories are taken but once a year at the annual closing of the books;
2. Where a card or loose-leaf record is kept of quantities only of each article;
3. Where monthly book inventories are arrived at by extending cost of sales in the sales records.

What special considerations would there be to which your attention should be directed before arriving at your conclusion?

**ANSWER TO QUESTION 8**

(1) From the books get the stock inventory at the commencement of the fiscal year, add thereto the total purchases subsequent to that date from the purchase ledger or records, if any, and otherwise as far as possible from the invoices paid and unpaid to be found; deduct therefrom the sales at the average cost as shown from the records of the present or previous year's business, the difference represents the amount of goods destroyed. If the stock is not an entire loss, check up the results where possible by a physical inventory and consider the amount of damage to it.

(2) If the card or loose-leaf ledger is a continuous inventory it would be evidence of quantities on hand, and the prices could be determined largely from the invoices, or in their absence by reference to the general market values. Adjustments would have to be made to allow for the recent arrivals or deliveries not recorded upon the cards, but which could be determined by the invoices and by the charges in the respective books. In other respects proceed as in No. 1.

(3) A monthly inventory would bring the stock on hand up very nearly to the date of the fire, and only the subsequent purchases need to be added and the subsequent sales deducted at the cost price of course. It is necessary, however, to verify the accuracy of the computations as well as of the prices used for listing cost prices.

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In any of the above the following considerations should be given attention:

Is the stock over-insured or under-insured?

Was a large or unwarranted purchase of stock made just previous to the fire?

The method and accuracy of the accounting system in use.

The co-insurance clause, which has a tendency to make the claimant under-value his stock if he has not been carrying enough insurance.

The question of omissions in purchases, i. e., invoices received and credited, but not delivered, and sales—goods recently sent out, but not charged.

Probably the point of greatest importance is the standing and reputation of the insured.

Were any of the goods merely the property of others in care of the insured?

Is freight duty and incoming burden included in the cost values?

Other conditions might, of course, arise that would require special consideration. It is often advisable to check up a few of the larger purchases and sales, both as to quantities and price, by referring to the houses from whom the purchases were made and to the customers of more recent sales; the correctness of such transactions being a fair indication of the general accuracy of the accounts.

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### QUESTION 9

You are called upon to close the books of a contractor in a building operation. Describe fully and specifically what you would take into consideration in the closing of the said books.

### ANSWER TO QUESTION 9

The contractor may contract to erect a group of houses or buildings, or to construct a skyscraper or other large structure. He may even have several operations or contracts in progress at the same time, all of which must of course be considered at the time of closing the books. It is his business to construct the building according to plans and specifications, for which he receives compensation as per agreement entered into when the contract was consummated. Before final payment is made, however, it is customary for a close inspection of the completed operation to be made by the architects, engineers or inspectors, in order to see that it is substantially built, in every way up to contract requirements, and in compliance with city requirements. Of course, the conditions applicable to the contract are clearly set forth in the written document, which may call for an entirely complete, adequately equipped, properly furnished building, or perhaps only for a part thereof. In any case the bookkeeping principles are the same. The agreement frequently specifies that the contract must be completed by a given date, otherwise a forfeit

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is to be made for each day of delay thereafter. On the other hand, the contract provides for possible delay on account of striking workmen, and other contingencies. Sometimes the contractor is required to furnish all materials and supplies, while at others they are to be supplied. The price to be received may be a given amount payable at certain stages of the work or upon its completion, or else a given profit over and above the outlay in connection with the contract.

Where the contracts are small and fully completed, or nearly so, at the end of a fiscal year there is little or no trouble to contend with. In that case it is well to take profit on only completed contracts, while those in progress should be taken at the process cost at the date of closing. In connection with contracts which extend over more than one fiscal period greater complications arise. Materials and supplies must be furnished, equipment and tools must be purchased and maintained, skilled and unskilled help must be obtained and paid off at regular intervals, salaries must be paid to the officials, and reasonable dividends should be paid to the stockholders.

If subcontracts are given, these in turn must receive advances at stated or reasonable periods. All of this naturally brings up the matter of payment. If the contractor has sufficient working capital to justify his deferring settlement until the entire structure is completed, that might be done to advantage, but such is not always the case. In large contracts, such as the one under consideration, payments on account are generally provided for, specific sums being payable at different stages of the work.

The following are illustrative:

When foundations are completed the sum of .....\$ \_\_\_\_\_  
When steel frame work is erected to 4th floor the sum of ..... \_\_\_\_\_  
When steel frame work is entirely completed the sum of ..... \_\_\_\_\_  
Etc., etc., etc.

Before payment is made to the contractor a careful inspection is generally made by the engineers to see that the portion completed is satisfactory. The amounts received from time to time by the contractor are, of course, considered as advances on the contract price, but they are usually, as a matter of precaution, considerably under the amount earned at the time. On the assumption that the amounts already received are on a conservative basis, it might be considered reasonable to take the aggregate amount thus received as the earnings to date. As the bills for work completed are made out by the contractor, an entry is made debiting the person to whom the account is billed and crediting the contract account. If, at the end of the year, a considerable time has elapsed since the last payment on account, it is apparent that additional earnings will have been made that are not yet entered. Credit should be taken for the portion earned. In closing the books it is advisable to use precaution in taking credit for earnings. It is better to be conservative than to overstate the profits at any given date. In determining the net profit, it is, of course, necessary to charge up against the earnings the various

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costs of material, structural work, supplies, labor, etc., and the various operating and administrative expenses. The amounts paid or due to subcontractors must also be carefully considered in preparing statements.

### Considerations in Closing the Books of a Contractor:

**Earnings.** Credit may be taken for a portion of the earnings on work in progress. If, for example, one-half of the entire contract is completed it would be safe to take credit for not more than one-third of the entire contract price, or even less. This presupposes a long time contract.

**Materials and Supplies.** The contract should be charged with the cost value of all materials and supplies used up to the date of closing. Incoming freight and trucking should be included in the cost.

**Labor Charges.** This will include the wages paid and accrued to workmen engaged in the operation to the date of closing.

**Depreciation.** This includes the depreciation of plant and equipment at the rate decided upon. If the equipment is rented the rental price paid and accrued must be included.

**Fire Insurance.** The contractor may be required to protect the owner against fire loss during the period of construction and until the building is turned over to him. Premiums paid must be considered, and credit taken for the portion prepaid.

**Indemnity Bond.** The contractor is frequently required to furnish bond to the owner guaranteeing faithful performance of the contract. The premium used and prepaid should be considered.

**Liability Insurance.** This is insurance against accidents during the process of construction and should be considered in closing. It is frequently adjusted on the basis of the pay roll. Prepaid premium should be considered.

**Administrative Expenses.** These should, of course, be considered and charged against earnings. If different contracts are under construction, the expenses must be pro rated.

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### QUESTION 10

Write fully your mode of procedure in making an audit of a municipality. Give full particulars, with an illustration, using your own figures.

#### ANSWER TO QUESTION 10

Municipality means a borough, town, or city incorporated by the state and enjoying self-government. A small city will be used as an illustration in answering this question.

In performing an audit of a city, the auditor must take conditions as he finds them, and proceed accordingly. Writers on the subject of municipal accounting, auditing, etc., too frequently select the ideal as a basis for formulating outlines and rules of procedure, but actual experience shows us that few municipalities have up-to-date accountancy systems. Even the larger cities are not all exempt from the charge of

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dereliction in this respect. In most small cities a record is kept only of cash receipts and disbursements, and little or no notice taken of assets and liabilities or of accrued charges. And even in cases where a balance sheet is made, many accrued items are omitted and no attempt made to place a systematic valuation upon real and personal properties belonging to the municipality.

The business of a city is to conduct its affairs through its duly elected officers in a way that will provide the greatest degree of convenience, comfort and good to its citizens. The city is owned and its affairs operated by the citizens thereof, and they have the right under the charter to govern themselves so long as their manner of conduct and plans of administration are in harmony with existing laws and public welfare. To provide funds for the city's needs and to carry on its various activities the citizens thereof must contribute; therefore the revenue for this purpose is raised largely in the form of taxes. The tax is levied on either real or personal property, or both, in accordance with its assessed valuation, and sometimes special assessments are levied upon particular individuals who have been benefited. Additional income is also provided in most cases other than through taxation, as shown below:

### **The Sources of Revenue of a City**

Taxes on real and personal properties, and polls.

Special assessments.

Licenses—liquor, mercantile, dog, etc.

Excise taxes.

Franchises.

Permits.

Privileges.

Rents.

Market fees and rents.

Tolls and fees.

Court fines, fees and penalties.

Water and light rates.

Interest on funds, loans, investments, etc.

Sale of old materials.

Public service enterprises.

Other sources of revenue.

Such income as has already been collected by the municipality at the date of the audit will be included in the cash receipts, and of course the remainder should be carried in the assets as unpaid or delinquent taxes, accrued revenues, etc. On the other hand, the various expenditures will be shown under cash disbursements and can be checked through the cash book. Unpaid bills and unused appropriations are shown among the liabilities. The various expenditures may be summarized as follows:

### **Classification of Expenditures of a City**

City government, salaries, expenses, etc.

Protection of life and property, police, fire departments, etc.

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Health conservation and sanitation, street cleaning, sewage, hospitals, etc.  
Highways, streets, bridges, grading, lighting, sprinkling, improvements, etc.  
Charities and corrections, poor, children, insane, reformatories, prison, etc.  
Education, schools, libraries, museums, etc.  
Recreation, parks and gardens, baths, entertainments, etc.  
Public service enterprises, markets, docks, ferries, cemeteries, water supply systems, etc.  
Expenses for invested funds.  
Interest of various kinds.  
Miscellaneous, including expenses of trust funds, etc., etc.

**Conducting the Audit**

In conducting an audit of a municipality the auditor should familiarize himself with the charter provisions and requirements, and to some extent at least with the most important city ordinances in order to note whether the requirements with which he is most particularly concerned are being carried out as directed. He must also "get acquainted" with the various departments and subdivisions of the corporation, and with its methods of doing business, keeping records, making reports, passing upon cash disbursements, etc. The duties of employees and heads of departments should be noted. If there is a well regulated internal check on the departmental business, the auditor is not compelled to scrutinize as carefully, perhaps, as would be necessary under less favorable conditions. The budget or estimate of income and expenditures for the succeeding year, when finally adopted by the council, is used as a basis for regulating the tax levy, which consists of a certain rate on the assessed value of taxable property. Appropriations of this income are, of course, made to the various departments and activities and must be so recorded in the accounts of the city, kept either by the treasurer, city clerk, auditor, or comptroller.

The income from taxes being the chief item of revenue the auditor must see, by checking with the tax receiver's records, that it has actually been received or is shown as taxes receivable or delinquent taxes. In any case a careful verification is required. Penalties attached to past due taxes should be examined to see whether or not they are being properly enforced in making collections.

Special assessments should be examined into in order to note whether all of their provisions are being carried out as to payments of principal, interest and penalties. Assessments not paid should be included in the assets.

The various items of income from licenses, rents, franchises, permits, fees, tolls, interest, etc., should be carefully checked with the receipt books of the receiving clerks in order to determine whether all collections are being made as required, and, if not, what provision has been

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made for their collection. The auditor should note whether all moneys received are duly accounted for by the city treasurer.

All accrued or outstanding assets should be carefully audited and compared with the statements of income and assets.

In the audit of expenditures care must be exercised to see that they are all duly authorized by the proper officials. Of course all vouchers should be approved and passed upon by the heads of departments where they originate. Payments are usually authorized by the city council, or by a finance committee, or by directors of departments, and in each case an order or warrant must be supplied by the treasurer as authority for each payment. In any case, no matter what the payment is for, it must first have been duly passed upon and approved by the properly constituted authority, otherwise the auditor should inquire into its validity. In a careful audit all items of income and outgo should be examined, and for all disbursements there should be vouchers or cheques upon which the auditor should place his stamp or some canceling identifying mark to prevent its being used a second time.

The board of examiners has asked for full particulars and an illustration in answering this question. I have already given particulars regarding the revenue and expenditures of a city, but to provide an illustration it would be necessary to assume amounts. This would include the budget and its appropriation to the various funds or departments, and then the assumption of receipts and disbursements for the year. Instead of doing all of this, the accompanying statement of assets and liabilities is intended to supply the figures asked for to complete the illustration.

**The Audit of Assets and Liabilities**

The accompanying balance sheet\* has been taken from the statement of a small city and a few alterations made in it to meet conditions. In addition to the audit of income and expenditures the auditor must carefully examine all of the assets and liabilities in order to satisfy himself that the assets are as represented and that the liabilities are all included. Fixed assets can be taken at their appraised value in case any valuation has been placed upon them, but deeds of the same should be seen. Many of the smaller cities make no attempt whatever to inventory properties on hand or to take into account current assets and liabilities, other than possibly cash on hand, loans, taxes receivable, stores, assessments, securities, bonded debt, and trust funds. Certified inventories should be required of all stores and supplies on hand, and the accuracy of prices and extensions verified. Cash should be proven by comparison with the cash drawers and bank accounts. Certificates of balances should be secured from depositories. Cash in the treasurer's office should be verified by actual count, also cash in the hands of the receiver of taxes, collectors of delinquent taxes, and other accounts, etc. The entire cash receipts and payments for the year are, of course, to be audited, and the receipts

\* This balance sheet will appear in the April number of *The Journal*.

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and deliveries of supplies should be examined with equal care. Temporary loans, assessments receivable, securities on hand, bonds and other evidences of loans outstanding should all be carefully verified by actual inspection. If the books do not include current accounts receivable and payable, these should by all means be considered in making the balance sheet. Vouchers audited and unaudited, warrants payable, etc., should be verified. The bonded indebtedness and all funds held by the sinking fund trustees, as well as the special trusts in the hands of the city, should be subjected to careful scrutiny, and fully verified with recorded deeds, ordinances granting temporary loans, etc.

The auditor's report, which accompanies the various exhibits and schedules, is usually fairly brief and makes reference to the main considerations that are to be brought to the attention of the council or the mayor, or to whomever he makes his report. It may or may not contain recommendations to the councils. The various exhibits are referred to as "Exhibit A," "Exhibit B," etc., and they are usually accompanied by the supporting schedules giving details.

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## The Treatment of Interest on Manufacturing Investment

In a manufacturing business shall interest on investment be considered as a factor of cost, or shall it be treated as a deferred charge against profits? The matter is one of considerable practical accounting importance and one on which the views of prominent accountants are diametrically opposed.

The reasons for this divergence of view and of practice have been presented in scattered articles, in single addresses, and in discussions following these addresses, but they do not seem to have received at any time a connected, reasonably complete and comparative consideration. For the purposes of such a consideration the JOURNAL presents in the following pages for the first time a series of comparative articles for and against the inclusion of interest on investment in manufacturing cost.

Although the writers of these articles are well-known and able advocates, it is not probable that they have given all the reasons that can be adduced in favor of the one course or the other, nor is it likely that their arguments are all unanswerable. For the sake of a full discussion and, as far as may be, a practical settlement of the question, it is to be hoped that the statements of the present articles will be supplemented or commented upon as may seem necessary. For this purpose the JOURNAL columns are open.

## Interest on Investment in Equipment

BY WILLIAM MORSE COLE

*Assistant Professor of Accounting in Harvard University*

Though it is common to speak of cost accounting as if it were different in nature from other kinds of accounting, virtually all accounting worthy of the name has for a prime purpose the determination of cost. Accounting should serve as a guide in three ways: in fixing prices so that they shall be adjusted properly to costs; in eliminating waste of material, of labor, and of burden charges; and in determining what had best be undertaken in the establishment itself and what had best be purchased or ordered outside. Since these three purposes are the recognized fundamental purposes of cost accounting, it is necessarily true that whether an enterprise is concerned with manufacturing, distribution, or service, its accounting should be, in a sense, cost accounting.

Let us examine these three aims in turn.

Prices must be fixed at such a point that they shall at least cover (1) materials, or goods; (2) labor, or service; and (3) expense burden, or what are commonly called "overhead charges." Obviously, if the last of these is not quite fully covered, the continuance of production or service is not economically advisable (unless, of course, the work serves other purposes than those which are immediately connected with the initial enterprise). If, again, the income provided by the price gives less than a proper amount as interest on the investment—investment in the form of capital locked up in machinery, facilities, material, or waiting product,—the return is not economically sufficient to make the enterprise self-supporting. If this interest is not included in the expense burden, therefore, it must be added later, somewhere, before one can know whether the return is adequate to make the enterprise self-supporting. Since one of the purposes of accounting is to show whether the return is adequate, the interest would seem necessarily to be involved somewhere in the accounting.

Efficient management always attempts to eliminate as much as possible of excess consumption of material, excess expenditure of labor—both mental and muscular,—and excess investment

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in machinery, in other facilities, and in supplies. The best guide for such elimination is an analysis of these various elements, so that comparison may be made between different methods and between different managements. To use a simple illustration, there may be a choice between two methods as follows: machinery at a cost of \$35,000, materials at a cost of \$5, and labor at a cost of \$20; or machinery at a cost of \$5,000, material at \$5, and labor at \$30. We may know, perhaps, that the maintenance, insurance, and taxes on the machinery, while the article is in machine process (that is, the share of maintenance, insurance, and taxes chargeable on this particular production), will be \$10 in the first case, and \$1.50 in the second case. These figures give us with the expensive machinery a production-cost of \$35.00 (that is, \$5 for material, \$20 for labor, and \$10 for maintenance, etc.), and of \$36.50 (\$5 for material, \$30 for labor, and \$1.50 for maintenance, etc.), with the less expensive machinery. Taking no account of the interest, therefore, the investment in the expensive machinery appears worth while—if, at least, our production is so large that a margin of \$1.50 reduction in cost on each article of product is worth while when set against the possibly greater error in our estimate of depreciation, etc. Yet we have clearly left out of account one element of the problem, for, until we know the length of time for which these different equipments are involved in production we do not know whether interest on the greater capital in the first case will more than eat up the margin of saving over the second. If, for example, the machinery is employed a day in producing this article, even though we use as low a rate of interest as 3 per cent, there is in the expensive machinery an additional element of \$3.50 in interest for the one day involved (on a 300-day basis), but there is an additional charge of only 50 cents in interest, on the same ground, for the inexpensive machinery. This difference in favor of the less expensive machinery turns the scale of advantage; for the costs are now \$38.50 compared with \$37. If, on the other hand, the machines were employed in this production only one hour, on the basis of a 9-hour day, the more expensive machinery with the lower labor cost would be a more economical means of production; for, since the interest element is now only 39 cents, its total is \$35.39, but the total for the other machine, with interest of 6 cents, is \$36.56. It is absolutely

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essential, therefore, that interest be taken into consideration in determining which of two methods of production is more economical.

The same sort of consideration of interest is essential in attempting to determine what we shall make in our own establishment and what we shall order outside; for if work at home involves investment in machinery, or other facilities, so that we must get a return of \$38.50 from our ultimate product or service, but we can purchase the same product or service outside for \$37, it is obviously foolish to do the work at home—unless, indeed, our freedom from outside dependence is worth to us more than the difference in cost, or unless we can find no employment for our capital elsewhere at a rate as high as that which we have used in our calculation.

No comparison is possible between different establishments, between different periods in the same establishment, or between different methods in the same establishment, if capital investment in labor-saving or material-saving machinery is neglected; for the very purpose of such investment is to save cost in other directions, and to neglect the capital sacrifice, made in saving other costs, is to neglect in part the very aim of cost accounting.

Opponents of treating interest as a cost may admit the need of knowing the figure of interest but may deny the desirability of showing it on the books. The function of an accountant is to analyze a situation and learn the facts; and the function of a bookkeeper is to record the facts which, if not recorded, will be forgotten. It seems, therefore, as if it is the function of a cost accountant to learn regarding interest the facts which will serve as a guide in determining prices, in eliminating wastes, and in determining what may best be undertaken; for one cannot otherwise easily get a safe guidance in these particulars. It seems, too, as if it is the function of the bookkeeper to record the results of such study, for surely they will be forgotten if they are not recorded.

Possibly some persons admit that, for such purposes as those just discussed, interest must be considered, but deny that it is a cost. Discussions of terminology are quite as likely to be fruitless as fruitful. Any practical value that they may have must lie in a possible better common understanding of one another's meaning when men use the terms in question. Today the

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word "profit," which is the complement of "cost," is used in many senses. Under many partnership agreements, salaries and interest on investment are charged as expenses, and net profit is the gain arising from proprietorship pure and simple—from the *circumstance of responsible ownership*, aside from the salary of the manager as manager (not financially responsible) and from the income of the capitalist as capitalist (not personally responsible). The happy conjunction of ownership and personal responsibility often results in a gain not otherwise realizable, and that gain is profit. When there is no provision for interest and salaries, on the other hand, the term "profit" is commonly applied to the difference between the gross income and the charges incurred for purchases and outsiders' (non-partners') services; so that the profit shown is a compound of return for proprietors' services, for interest on partners' investments, and for the circumstance of responsible ownership. In corporation accounting, again, salaries are always included in expenses, and the net income is the return to the stockholders as owners of capital. In common parlance, therefore, the word "profits" means much or little. Knowing this, men always interpret it with a mental foot-note.

On the announcement of the figure of profits under an agreement which makes no provision for interest, the first mental act of anyone interested in the business is to see what relation those profits bear to the capital—so as to see what are the excess profits over a reasonable return on the investment. Instinctively interest is a first deduction—partly because it has a definite basis that can be figured, and partly because it is the one thing that everyone counts on. One does not think of terminology: one thinks only of the fact. Virtually everyone admits that in partnership or other settlements the most satisfactory agreement is one that provides for a definite interest charge. This is mere practical convenience. Though the accountant is not much concerned with theoretical economic distinctions, he is at least interested when he sees that economists use a term in a sense that happens to be, for his own practical purposes, most convenient for him. Professor F. W. Taussig, in his *Principles of Economics*, a recently published and standard authority used in many universities, says, "So much only of a business man's income is to

be regarded as profits as is in excess of interest on the capital which he manages." \*

We have seen that for analytical purposes, in studying operations, practical necessity requires us at least to consider interest in virtually all calculations when investment is involved; and we have seen that in financial statements practical convenience is served by the treatment of interest as a charge, or cost, rather than as a residue, or profit. It seems reasonable, therefore, for accountants to adopt a terminology that will serve their own ends, will agree with the terminology of economists, and will mislead no one. Business men are likely to be misled in the future, as they have been in the past, by statements of profit which assume that no cost is involved in the use of capital.

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### On the Inclusion of Interest in Manufacturing Costs

By A. HAMILTON CHURCH

*Consulting Industrial Engineer, Patterson, Teele & Dennis*

The question whether interest should be included in shop costs is frequently obscured by a certain indefiniteness as to what is meant by "interest" in this connection. As a matter of fact, interest as met with in accounting is of two kinds, *viz.*:

(1) Interest paid out by the concern for the use of borrowed capital, as on mortgages, debentures, loans and otherwise. The bearing of this kind of interest on the profits which will ultimately be distributable on the stock of the concern is of course very important. Bad financing may swallow up the profits, but this has nothing to do with the manufacturing efficiency of the shops. Whether or not the proprietors or directors elect to borrow, rather than to invest, capital, is entirely a question of how they are willing to distribute profits when earned. In other words, it is a question of finance, pure and simple, and affects revenue account alone.

(2) The second kind of interest is the only one now under discussion, namely, an assessment for the use of capital values in the actual processes of manufacturing, represented by land,

\* Vol. II, p. 179.

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buildings, plant machinery, stores and work in progress, etc. I prefer to call this an "interest charge."

Not only are these entirely separate kinds of interest often confused, but it has happened that concerns have included in their costs percentages designed to distribute the interest incurred for mortgages and even for loans, while entirely ignoring any charge for the use of capital in the various forms employed in the shops. Such a practice has neither theoretical authority nor practical advantage.

The general principle that we must apply in discussing this question is that of utility. Older writers on the subject have frequently asserted that one or other of the aspects of the question was more "theoretically accurate," but have generally failed to state the terms of the theory involved. Probably, however, the older practice was on the whole against, rather than in favor of, including any interest charge for the use of capital in costs.

Until recent times, there was a good deal to be said for this attitude, for it must be clearly realized that such an interest charge does not affect the ultimate profits, however handled. If included, it increases costs, but this increase in costs is offset (when the whole course of the transactions is summed up in the profit and loss account) by the accumulation of a balance in the "Interest Earned" account. If not included, costs are lower by just the amount that would have been thus accumulated, and the net trading result is the same in both cases.

In such circumstances it is hardly surprising that many persons, looking at the ultimate result rather than at the intermediate steps, should have preferred the simpler method, and avoided the inclusion of interest in costs. It was of practically no service to the accountant, and from the nature of the methods by which the distribution over costs was made, it was scarcely of more value to the technical man or to the estimating or selling departments.

All indirect expense, including of course an interest charge where such was made, was formerly distributed over product in direct proportion to labor involved, or in proportion to time (hourly burden) taken to do the job. The informative value of such methods of distributing burden is very small, and as regards the item of interest-charge included may be said to be nil. The proportion of interest that became affixed to any given job

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bore no proportion whatever to the call on the use of capital made by that job. A purely hand-skill job might take just as much burden as a job calling for the use of the most powerful machines. All that was really attained was a rough idea of the bearing of indirect expense to direct labor *averaged over all the work*. When this figure was ascertained, the wholly unwarrantable assumption was made that each individual item of work might be safely regarded as taking neither more nor less than such average burden, whereas the truth commonly is that the real absorption of burden by different jobs is very unequal.

Practical intuition discerned this inherent vice of percentage systems long before any remedy was known, and burden figures have as a consequence been under a cloud, and have been treated with perhaps unconscious contempt by the technical men for whom alone they have any significance. If this was the case with all burden, it follows that the inclusion of interest charges in such burden had no practical value whatever.

Some attempts were made at various times, and even very early in the history of manufacturing, to remedy this defect. Machine rates were introduced to give some fairer incidence of the use of capital on individual jobs, but these were crude and arbitrary, and remained unsystematic until the present writer undertook an examination of the whole question of expense burden in 1899-1900. Since the publication of *The Proper Distribution of the Expense Burden*\* there has been a steady growth of perception among accountants and manufacturers of the desirability of abandoning the practice of aggregating all kinds of indirect expense under the head of burden, in favor of a segregation of such expense into classes or "factors," and observing the relations of such factors to the actual operations of the shop.

Briefly speaking, the method of "production factors" is designed to give, among other things, due expression to the influence on costs of the use of capital in manufacturing operations. This applies not merely to the capital involved in productive machines and tools, but also to that involved in auxiliary factors of production such as the land-building factor, the power, heating and lighting factors, the stores-transport factor, etc.

\* First published in *Engineering Magazine*, 1901. In volume form, 1908. Reprinted, 1912. The subject has been expanded, from a more directly practical viewpoint, in *Production Factors*, published 1910.

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Each of these factors represents a definite kind of expense, having a particular and definite bearing on the manufacturing processes. The cost of each factor is separately assessed against the productive machines making use of the services involved in, of course, exact proportion to the extent of the service.

Under this arrangement it is evident that each productive machine will be charged with a series of factor rents according to its individual call on the different services (including interest charge on its use of capital) rendered by the factors of production such as the land-building factor, the power factor, the transport factor, and the interest and depreciation charges on the capital value of the machine itself—the resulting total being expressed as an hourly "machine rent." Large and costly machines, occupying considerable space, using much power, and calling on the transport factor for heavy craneage service, will naturally have a very different machine rent from light, cheap machines, calling in a less degree on any factor. Consequently also the jobs done on these respective machines will have a very different amount of burden affixed to them.

The method of costing by "production factors" removes what was the main objection to the inclusion of an interest charge in costs under former methods, *viz.*, its inutility. On the contrary, to include it becomes logical and even necessary, as soon as we are able to connect its incidence with the variety of processes performed on individual jobs.

While it is obvious that the manner in which capital is *provided* (as by means of stock, mortgages, loans, etc.) cannot affect the cost of shop processes, on the other hand the manner in which capital is *used* must have a strong influence on the efficiency of production from the point of view of cost. Just as soon as two processes are used in the same plant, it becomes necessary to delimit as closely as possible all the elements of cost of such processes. Where more than two are used—and in a modern plant they may be counted by scores and even hundreds—this necessity increases in proportion to the complexity thus introduced. One of the first questions that would naturally arise if we approached the matter from a logical and natural standpoint would be to what extent the use of capital is involved in the different processes. This can be shown in the simplest and most convenient way by charging production for the use it makes of capital, in each of the different processes.

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It is only by doing so, and consequently by segregating all expense into factors and including a reasonable interest charge for the capital used in the services represented by the factor, that we can obtain the complete story about the cost of any process. Wherever capital is made use of, whether in the power plant, in the erection of buildings, or in the purchase of costly special machinery, the use of such capital has to be paid for, somehow and somewhere. *It is only rational that it should be paid for by just those processes (and therefore those jobs) which involve its use. To exclude interest charge from cost of these jobs is to ignore one of the most important matters that we should know, namely—how far this use of capital is economically justified.*

The matter is rendered more important than formerly owing to the steady increase in the value of plant relatively to the cost of labor. A recent study of manufacturing statistics by Mr. A. C. Popcke (*Engineering Magazine*, September, 1912) shows that the horse power to drive machines has increased, on the average, 40 per cent per operator in the last ten years. Similarly capital investment in plant has increased 46 per cent per operator in the same period. These changes are significant of the growing size, weight and capacity of modern machinery, and point to the necessity of connecting a charge for the use of capital with the various factors of production, and so, later, with each individual line or item of product.

In particular, no purchase of new equipment should be made until its call on all production factors has been worked out, and due attention paid to the influence of its use of capital, as represented by a reasonable interest charge.

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**Interest Not a Charge Against Costs**

By W. B. RICHARDS

The writer does not believe in the principle of charging into either cost of production or administrative expense interest on the capital invested in the business. Many concerns do so charge interest, and many reputable accountants and efficient engineers allow it; but it is hard to see the logic of their arguments in its favor. In the writer's experience he has found that it is

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usually done for the purpose of increasing the cost for some reason, such as influencing the selling department in securing good prices for their goods, or for the purpose of concealing the real cost of the articles made; the manager of the sales department, knowing the real cost and making allowances where necessary at the time of sale.

Among the reasons for not approving of this interest charge are the following:

Every properly conducted concern includes in its cost of production a regular charge for depreciation of its plant, property and equipment. This charge, if correctly figured, keeps the value of its property accounts at the convertible figure. In these circumstances it would seem that charging interest as well on the amount invested would be making a double charge.

The financing of a business should be kept distinct from both the production department and that of administration.

Money borrowed by a business, whether on bond and mortgage or unsecured loans, should be considered as part of the capital, and, while interest paid on this is a fixed obligation, it should not be taken into the production costs—but should be considered a part of the commercial expense.

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### **Interest Not a Part of the Cost of Production**

By J. E. STERRETT

It is interesting and perhaps significant that cost accounting is commonly thought of as appertaining to the affairs of manufacturers only. It is, however, apparent that the principles governing the correct determination of the costs of manufacturers and other producers who must meet open competition also operate in ascertaining the cost of services rendered to the public by utility corporations, and the need for a knowledge of costs is substantially the same in both classes. To the first class a knowledge of cost is essential in the fixing of prices, the maximum of which is regulated by the inexorable law of competition. The second class must be prepared to show the cost of the service rendered and the value of the property employed in order that just rates may be established.

In both instances it is necessary to fix a selling price, or

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secure a rate that will not only return the actual cost of production (or of service, as the case may be), but will yield a reasonable return upon the property employed. While there is thus a constant association of these two elements in prices and in rates, they are distinct and each is entitled to its own identity and position. It may be interesting in passing to remark the wide variations in the relative proportions of these elements in different circumstances. The ratio of cost to price, or rate, may be as high as 80, or even 90, per cent in certain types of merchandising, and will drop to say 25 or 30 per cent in a gravity water system. In the first instance the interest (or return upon capital) factor is comparatively small, while in the latter it looms much larger than the cost factor.

Public service commissions and other rate regulating bodies have uniformly maintained a proper distinction between cost and return upon investment; but those who have felt called upon to discuss manufacturing costs have not always approached the question with the same clarity of vision. Moreover, those who assert that interest is an element of cost seldom attempt to give any logical reason in support of their contention, and they fail to carry their theory to its ultimate conclusion.

The end commonly sought by them is the attainment of costs that will reflect the employment wherever used of expensive types of machinery. It is obvious that the use of a costly machine must increase the hour rate of cost even though it may reduce the total cost of the article produced; but an adequate adjustment in respect of the use of the machine is, or should be, secured through the charge for depreciation, or speaking more accurately, the expired outlay upon productive plant. It would seem too that if interest is a part of cost the principle would in nowise be dependent upon the value of the equipment, and in theory, at least, it should be just as essential to include a charge for interest upon the capital invested in small tools as upon that locked up in the most elaborate and expensive machine. Moreover, why charge interest upon fixed capital and omit to do so in respect of floating capital? The oil that lubricates the machine, and the raw material that enters the product may be in the storeroom for months before being consumed and during this period they represent capital invested quite as surely as does a lathe or drill press. Or, viewed from another angle, why not

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compute interest upon wages paid from the date of payment until the completion of the article or job? The procedure might indeed even become so fascinating as to lead to a further charge for interest from the date of completion to that of sale.

The theory that interest is a part of cost is as unsound in economics as in accounting, but, as a discussion of that aspect of the question would be largely academic and outside the present field, it is desirable to pass on to a brief consideration of some of the results which would follow the adoption of a cost system providing for the inclusion of interest as a part of the cost of production. In doing so, however, it is necessary to have clearly in mind the more important purposes for which costs are ascertained. The primary aim is undoubtedly to aid in establishing a basis for fixing selling prices, or rates; while the secondary and scarcely less important, is to determine a fair value for inventories. Other purposes, such as reducing cost, increasing efficiency, eliminating waste, affording comparative statistics, etc., are important, but, as they present no problems not developed in connection with the first two purposes named above, they may be dismissed without further comment.

The determination of a proper selling price or rate depends for its successful accomplishment upon several things, of which cost of production is only one, although a highly important one. Other determining considerations are the cost of selling or distribution, terms of credit, risk of loss, and rate of profit required to yield a return upon the capital employed. At this point interest must enter into the calculation, but to inject it at an earlier stage serves only to confuse and render more inaccurate the cost accounts which under the most favorable conditions contain a margin of error far too wide for comfort.

In many lines of industry the value of the material and labor that can be specifically allocated to a particular article or job forms a minor, rather than a major, part of the total manufacturing cost. In all cases a relatively large amount of indirect cost is incurred and must be distributed by some means that in the most favorable circumstances do not admit of entire accuracy. Everyone acquainted with the conditions inherent in productive processes knows how necessary it is to devise methods by means of which the largest possible measure of the total costs of production can be identified with and charged to a given article or

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job. Thus at a time when the best efforts of every intelligent cost accountant are being put forth to reduce to a minimum the proportion of indirect costs of production the wisdom of introducing an interest charge requires a clearer demonstration than any of its advocates have yet given. When it is considered that such an interest charge, instead of being a small, perhaps almost negligible, quantity, may and frequently would be a substantial proportion of the entire cost, the danger of serious error in the results is enormously increased. Furthermore, as there is, practically speaking, no fixed rate of interest (the legal rates varying in our own country from 5 to 10 or 12 per cent) the charge itself as adopted by one manufacturer might vary from that of his neighbor to an extent of 25, 50 or even 100 per cent. Production costs determined upon such an uncertain basis could only be accurately described as speculative costs.

The correct basis for inventory valuations is universally admitted to be that of the cost to produce the goods in the stage or condition in which they are when taken in the inventory. The only exception to this rule is that where current market prices are lower than cost, then, in order to be conservative, the market prices should be taken. An auditor cannot properly give an unqualified certificate to a balance sheet in which the inventory prices include a charge for interest upon capital, and bankers naturally object to any attempt at anticipation of profit upon the part of a borrower. In short, the inclusion of interest in an inventory valuation would, and properly enough should, tend to impair the credit of any concern indulging in such practice.

From an accounting viewpoint, interest or return upon capital invested is a part of the profit to be derived from trade. In its proper place it is no more to be overlooked than the cost of production or the selling and management expenses, but to merge it with cost of production or with the expense of distribution tends only to confusion and error. Furthermore, there is a broad distinction between profits anticipated and profits realized, and to begin to take profits weeks or months before the goods can be offered for sale is not only unsound in accounting but censurable in finance.

## Accounting Charges

BY FRED'K. GEO. COLLEY, C.P.A.

In that admirable recent addition to the literature of accountancy, MONTGOMERY's *Auditing, Theory and Practice*, Chapter VI, there are several paragraphs relative to accountants' fees. As a profession we deplore the accountancy-correspondence-course advertising, which tends to exaggerate the compensation of professional accountants. To quote from Mr. MONTGOMERY's book: "The implication in these advertisements that there is some fixed scale of fees which an accountant can charge is more or less correct, and it is unfortunate that such is the case, for it tends to place the profession on a par with day laborers."

We point to the physician and the lawyer to whose professional standards we aspire. While the average physician bases his fees on a certain minimum for residence calls or office calls, he nevertheless has some regard for the nature and circumstances of the case in rendering his bill. Also the physician or surgeon of widely demonstrated skill and ability has in mind not only the nature of the services rendered but the financial ability of the patient. He is not entirely illogical in assuming that the mending of the broken leg of the millionaire is worth more than the same service rendered for a hod carrier. Everyone has heard of cases of large fees charged by members of the legal profession, based not upon time consumed, but upon the nature and value of such services to the client.

In the accountants' profession it has unfortunately become the rather general idea that we must look for per diem rates from big and little, regardless of the importance of the service, whether it be the formal audit of a small retail store or an examination of a group of manufacturing concerns preparatory to the launching of millions of dollars of securities on the market, involving questions requiring the exercise of the most expert professional skill and ability with the backing of long experience. Mr. MONTGOMERY says, "Under present conditions per diem rates yield the greatest compensation." The per diem

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rates of the best known firms of accountants enjoying the largest practice are well known to be as follows:

	Per diem
Principals .....	\$50.00 -
Senior accountants .....	25.00
Assistants .....	15.00.
Juniors .....	10.00 -
Stenographic and clerical .....	5.00.,

The author referred to quotes evidence given several years ago in an inquiry into the actual rates charged by accountants, which evidence does not materially conflict with the above stated scale of charges. It is, however, stated that "a maximum of \$250 per day is known to have been charged for a few days' service." The writer knows of one case where a fee of \$15,000 was charged and collected by a certain firm of New York certified public accountants for approximately two days' work of one accountant, and the client who paid it was entirely willing to do so.

Undoubtedly the tendency is contrary to uniformity in accountants' charges, and the capable accountant of established reputation will in the future endeavor to avoid any fixed scale of charges. Nevertheless there is a large body of accountants to whom it is all important that, regardless of the nature of the work, or the importance of the client, a certain minimum scale shall be established, below which no reputable member of the profession will quote under any circumstances. All certified public accountants profess to refrain from bidding in competition with one another; in the face of which it is notorious that the principal of one well-known firm of accountants has openly stated his willingness to accept any engagement for one-half of any fee or rate quoted by another prominent New York firm. Such an attitude is beyond discussion. The maintenance of a reasonable minimum, consistent with the *average* certified public accountant's professional education, skill, ability and experience, is of vital importance, and few, either client or accountant, will say that the above stated scale of per diem charges is not a fair minimum.

In this connection it is of importance to consider what is an accountant's "day," for which these charges are made. Some firms have established eight working hours, others seven, seven, and one-half, and still others "the client's office hours, long or

### *Accounting Charges*

short." Some accountants charge the client for all hours over eight per day—and pay their staff for overtime. Some do not. The question remains, "What is a day?"

Furthermore, some engagements are taken on a per diem basis, "plus expenses." What are "expenses"? There is a wide difference between the "expenses" charged by various accountants. For instance, some firms include all railroad fares, sleeping and chair car charges and hotel bills (and what is the reasonable limit of an accountant's hotel bill?). Other accountants allow no petty or personal expenses to their staff, such as carfares, clothes pressing, shoe polishing, etc., nor luncheon, on the ground that these are personal expenses and not additional disbursements due to absence from home in the service of the client. Other accountants place a per diem limit to the expenses of their staff, varying according to the place where the engagement is executed.

The purpose of this article is not to dispose of these questions, but rather to excite discussion through the columns of the JOURNAL, the course and effect of which may be of general interest to readers:

- (a) What should constitute an accountant's day?
- (b) Should the client be charged for overtime, and should an accountant's staff be paid for it?
- (c) What "expenses" should an accountant charge to his client?

# The Accounting of Interest and Discount on Notes

BY JOHN BAUER

*Assistant Professor of Economics, Cornell University*

## FIRST ARTICLE

The beginning student of accounting finds himself perhaps more perplexed with the theory and treatment of interest and discount on notes than with any other part of accountancy. Partly the difficulty is that the ideas involved are abstract and elusive. But the principal difficulty is that the facts are usually not clearly analyzed, separated and explained. With a few exceptions (perhaps two or three), the current texts on accounting and double-entry bookkeeping give rules, but they do not develop and explain *principles*, nor do they set forth in a clear-cut way, the nature of the items that enter the Interest account. The majority of instructors pursue the same course. The result is that the ordinary student eventually learns the rules and how to apply them; but he never really understands the fundamental facts with which he is dealing.

Courses in accounting, especially in the universities, should emphasize *principles* above everything else. It is *principles* that make accounting a science—and it is the lack that makes the usual high school bookkeeping a waste of time for the student. Clear-cut principles are especially important in the part of accounting dealing with interest and discount. Even if they are kept clear enough otherwise, here they invariably become murky.\*

The avowed function of the Interest account (or Interest and Discount account) is to show the earnings of notes receivable and the costs of notes payable for a stated period of time—

\* The principles of accounting are almost inseparably connected with those of economics. In the latter, the theory of interest is one of the fundamental considerations in the study of value. But just how interest affects value has been clearly understood and presented by very few writers. The great majority of well-known economists are all wrong or confused on the subject. If this is true, it is not surprising that practically all writers on accounting are likewise wrong or confused—since, if they have studied economics at all, it was under men who themselves did not understand the nature of interest. For a fundamental discussion of this subject see F. A. Fetter, *Principles of Economics*, and Irving Fisher, *The Rate of Interest*.

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a week, month, or year, as the case may be. According to current teachings and practice, the account contains the following entries:

### INTEREST AND DISCOUNT

#### I. At the beginning of the period

Dr.

Cr.

- |  |                                       |
|--|---------------------------------------|
| 1. Interest accrued on notes receivable. | 1. Interest accrued on notes payable. |
| 2. Discount due on notes payable.        | 2. Discount due on notes receivable.  |

#### II. During the period

- |   |
|---|
| 1. Interest payments made on notes payable.   |
| 2. Discounts allowed on notes receivable when prepaid.  |
| 3. (Usually neglected) Any interest accrued on new notes receivable acquired by the business. |
| 4. (Usually neglected) The discount due on new notes payable assumed by the business.         |

- |   |
|---|
| 1. Interest payments on notes receivable.   |
| 2. Discounts received on notes payable when prepaid.                                      |
| 3. (Usually neglected) Any interest accrued on new notes payable assumed by the business. |
| 4. (Usually neglected) The discount due on new notes receivable acquired by the business. |

#### III. At the close of the period (in red ink)

- |                                       |
|---------------------------------------|
| 1. Interest accrued on notes payable. |
| 2. Discount due on notes receivable.  |

- |  |
|--|
| 1. Interest accrued on notes receivable. |
| 2. Discount due on notes payable.        |

The debit side is supposed to show the interest costs for a period and the credit side the interest earnings—a debit balance showing the net costs above earnings, and a credit balance the net earnings above costs. The account is open to serious criticism, both from a theoretical and a practical standpoint. From the latter, it does not furnish the manager a sufficient number of facts about the business, and does not present them in a sufficiently clear manner. From the theoretical standpoint, it almost inevitably leads to confusion as to the nature of the entries involved; *i. e.*, whether they constitute fundamental increases or decreases in assets, increases or decreases in liabilities, or increases or decreases in proprietorship; more specifically whether they really represent costs and earnings or merely changes in assets or liabilities.

Let us take up the theoretical considerations first. To be sure, even as the account stands, every entry may be explained

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by correct principles, but as a matter of fact, first-class accountants have gone wrong in their explanations, largely because the construction of the account leads to a wrong suggestion. How, then, are the various entries to be explained?

I. Entries at the beginning of the period. These are merely adjustments of notes receivable and notes payable. As a matter of bookkeeping convenience, the notes of others which a firm owns are carried in notes receivable at their *face*, not their real value. Likewise, a firm's notes outstanding are carried in notes payable at their face, not their real value. In case of interest bearing notes, obviously at any time after a note has been issued and before the interest accrued has been paid, the real value is larger than the face. On the other hand, with non-interest bearing notes, at any time before maturity the real value is less than the face. To show real value, therefore, adjustments must be made through some other accounts, and the entries in the Interest account at the beginning of the period constitute just such adjustments.\*

On the debit side, interest accrued on notes receivable is value which fundamentally belongs to the notes, which are worth not only their face value, but also the interest that has been accrued and left unpaid up to date. The entry is therefore an asset item, in nature exactly like the Notes Receivable debits—in fact supplementing and completing them. Likewise on the credit side, interest accrued on notes payable attaches to the notes which the firm owes, and represents, therefore, a liability or a negative asset, in nature just like Notes Payable credits.

Turn now to the second debit at the beginning of the period, discount due on notes payable. This is fundamentally an offset against overstated values credited to Notes Payable. Remember that for convenience notes are always carried in the notes accounts at their face, not their real value. Non-interest bearing notes which a firm owes are therefore credited to Notes Payable at what may be called their *future*, not their *present* or *real* value. Their present or real value is theoretically a sum which with interest till maturity will equal the face. Now, the differ-

\* To avoid needless repetition of the term "account" in this discussion when the title of an account is meant, the terms used will be especially capitalized. Thus, Interest, Notes Receivable, Notes Payable, Interest Accrued on Notes Receivable, Interest Accrued on Notes Payable, etc., each refers to an account; otherwise these terms will not be capitalized.

### *The Accounting of Interest and Discount on Notes*

ence between the face and the real value is the discount due, the amount by which the real value is overstated in Notes Payable. Debiting this amount to the Interest account you counterbalance or offset the overstatement. Combining this debit with the credit of Notes Payable, you have the real or present value of the notes.

This entry may be conceived as an asset, but in the sense of merely counterbalancing an overstated liability or negative asset. If Notes Payable kept track of real instead of face values, this entry would not appear. Let us repeat that it is an offset to Notes Payable, marking the difference between the present and the maturing or future value of the non-interest bearing notes owed by the business.

Let us pass to the second credit at the beginning of the period, discount due on notes receivable. The explanation is exactly like that of the preceding paragraphs, except that we have to do with notes receivable instead of notes payable. Non-interest bearing notes owned by the business are debited to Notes Receivable at future value; the difference between that and the present is the discount due; this is credited to Interest and offsets the overstatement of real value. We may consider the item as a liability, or a negative asset in the sense of counterbalancing inflated positive assets.

Perhaps it is worth emphasizing that the items at the beginning of the period have nothing to do with interest earnings or costs. They are all subsidiary to the notes accounts, representing asset and not proprietorship values. The principles involved are simple enough and are usually clearly enough explained. It is with entries during and at the close of the period that explanations usually go wrong and students are left in confusion. As a matter of fact, not one of the regular entries in the Interest account represents costs or gains; all have to do merely with changing note values. All are fundamentally asset and not proprietorship entries. This proposition will be made clear in the following paragraphs:

II. Entries during the period. Interest payments made on notes which the firm owes are debited to Interest and credited to Cash, while payments received are credited to Interest and debited to Cash. Why the cash debits and credits is obvious, and we are not concerned with them. But why the interest

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debts and credits is by no means clear, and deserves very careful consideration.

The usual explanation is that interest payment made on notes which a firm owes is a cost and is therefore a debit, *i.e.*, it is viewed as a decrease in proprietorship. And interest payment received on notes owned is viewed as gain or earnings and therefore a credit, *i.e.*, an increase in proprietorship. As suggested above, this view is fundamentally wrong: the debit is not an interest cost, nor the credit an interest gain; they are asset and not proprietorship items. The debit is a decrease in the interest accrued on notes payable, *i.e.*, a decrease in a liability or negative asset of the business. Likewise, the credit is a decrease in interest accrued on notes receivable, *i.e.*, a decrease in an asset value. In other words, the debit is a decrease in the value of notes owed, and the credit a decrease in value of the notes owned by the business.

Suppose that during the period (say, January 12) you pay \$50 interest due on a note payable. Interest is debited with \$50 and Cash is credited with the same amount. Why the interest debit? The proposition is that the \$50 is not a cost of the period. On the first of the month the Interest account contained a credit balance of (say) \$48 interest accrued up to that time on the note in question—then the total amount owed is (say) \$1,000 on the face of the note, plus the interest accrued, \$48. When the payment took place on the 12th, the interest accrued amounted to \$50—an increase of \$2.

Now this \$2 increase had not been recorded, but it would have been in a system of complete accounting, so that the interest accrued on the note would have appeared at \$50 as a liability of the business. But, whether recorded or not (this depends upon accounting convenience), the increase has nevertheless taken place and the liability is \$50, and is a credit on the ledger.

When, therefore, the \$50 interest on the note is paid, in reality a debt of that amount is expunged. With complete accounting, just before the payment the books would have shown this liability; immediately after the payment the books would have shown the liability to be zero. The \$50 liability was a credit; the cancelling item must be a debit. Thus it appears

## *The Accounting of Interest and Discount on Notes*

that the debit to interest is fundamentally a decrease in liability and not a cost or decrease in proprietorship.

Now, take the other way around. Suppose on January 12 \$50 interest is received. Cash is debited and Interest credited. Why the credit? Again, the usual explanation makes it a gain, viewing it as an increase in proprietorship. But, in line with the explanations of the preceding paragraphs, the \$50 just before payment was a debt due, an asset of the business, and, with complete accounting, would have appeared as a debit. The moment after payment the debt due had disappeared, and there was in its place cash \$50. The interest credit, therefore, is fundamentally a decrease in assets, just as the cash debit is an increase in assets. Obviously, there is no gain involved in the transaction. This has to do with *asset* and not *proprietorship* items.

Turn to the second class of entries during the period, *i.e.*, discounts allowed or received on the prepayment of non-interest bearing notes. You hold Henry Jones' note, face value \$1,000, with 30 days till maturity. He pays \$995 cash now, and cancels his indebtedness. Notes Receivable is credited \$1,000, Cash is debited \$995, and Interest debited \$5. Why the interest debit? We are told that it is an *interest cost*; that you held a note of \$1,000 and it was cancelled for \$995, sacrificing \$5; this sacrifice is a cost, a premium paid for getting cash *now* instead of waiting till the note is due.

This reasoning is wrong. If it costs \$5 to transform one form of asset into another, why transform it? If \$5 is lost in selling a note (or any other form of goods), why sell? If the note is worth \$1,000, why give it up for \$995? If such an exchange is made, the \$5 should be charged to charity or folly, not to interest. As a matter of fact, Jones' note is not worth \$1,000; that is its *future*, not its *present* value. The present value is \$995; and that is what is received in cash for it. If you wait 30 days you will get \$1,000; but, taking payment now, you get only the present equivalent of the \$1,000, *i.e.*, you forego \$5 interest earnings for the next 30 days, but you do not lose \$5 as for the present month. You get simply what is due now, so there can be no loss.

The \$5 interest debit, therefore, cannot be regarded as a cost. What, then, is it? When Jones' note was first acquired

it was debited at face value (\$1,000) to Notes Receivable. But it was not worth \$1,000; consequently a credit offset should have been provided, equal to the amount of the overstatement. This sum is the *discount due* on the note and was credited to Interest. Now, as time went on, the value of the note became larger and larger, and the discount due correspondingly smaller and smaller. Thus, with complete accounting, just before payment, Notes Receivable contained a \$1,000 debit and Interest a \$5 credit, so that the combination of the two should give the real value of the note. Just after payment, all the values in reference to the note disappear off the books, including both the \$1,000 notes receivable debit and the \$5 offsetting interest credit.

There is at the moment a \$5 decrease in the discount due on notes receivable. The discount was in the form of a liability or negative asset and was a credit; the decrease, therefore, is a debit. This is not a loss, but merely a change in asset values. So far as the ledger is concerned this is what happened: a \$1,000 positive asset value (the face of the note) linked with a \$5 negative asset (the offsetting discount) value, was replaced by \$995 direct cash value. Then, where is there any loss in the transaction?

Suppose a case the other way about. You have given a non-interest bearing note, face value \$1,000, with 30 days to maturity. If the note is paid now, Notes Payable is debited \$1,000, Cash is credited \$995, and Interest credited \$5. Why the interest credit? Is it a gain that is made by prepaying the note? Again, the \$1,000 is future value and the present indebtedness on the note is only \$995. Just before payment, with complete accounting in reference to the note, the ledger would have shown Notes Payable credited \$1,000 and Interest debited \$5—the two linked together giving the real value of the liability. Just after payment, the above debit and credit disappear and are replaced by a \$995 cash debit. Where is there a gain? The \$5 interest credit records a decrease in discount on notes payable. Before payment there was a \$5 discount due; after payment this had disappeared, i. e., a \$5 debit was cancelled by a \$5 credit. This has to do with asset, not proprietorship values.

Take next the third class of entries during the period, i. e., any interest accrued on new notes receivable acquired or new

### *The Accounting of Interest and Discount on Notes*

notes payable assumed by the business. Suppose F. Noyes endorses to you on account E. Robertson's note for \$1,000, with interest accrued, \$10; you credit Noyes with \$1,010, debit Notes Receivable \$1,000, and debit Interest \$10. Now, suppose you assume W. Brook's note in favor of G. Canfield, the face value of the note, \$500, with interest accrued, \$5; debit Brooks \$505, credit Notes Payable \$500, and credit Interest \$5. Why the interest debit and the interest credit? The debit is an increase in interest accrued on notes receivable and the credit an increase in interest accrued on notes payable. The one is an increase in positive assets, the other an increase in liability or negative assets.\*

Then consider the fourth class of entries during the period, *i.e.*, discount due on new notes payable assumed or new notes receivable acquired by the business. Suppose a firm gives to T. Barnes its note on account for \$1,000 at 60 days, without interest; Notes Payable is credited 1,000, T. Barnes debited \$990, and Interest debited \$10. The other way about: suppose W. Todd gives his note on account for \$1,000, at 60 days, without interest; Notes Receivable is debited \$1,000, W. Todd credited \$990, and Interest credited \$10. The interest debit serves to offset an overstated notes payable credit, the real value of the note owed is only \$990, not \$1,000. Likewise, the interest credit is an offset to an excessive notes receivable debit. They are subsidiary note entries, having nothing to do with interest costs or earnings.

The third and fourth groups of entries just discussed are usually neglected by text-book writers and in practice. If, however, the accounts are to record business facts as they are, these entries should appear as indicated. If they are neglected, the final results of the Interest account is vitiated. The balance, supposedly showing net costs or gains for the period will be unduly inflated or diminished. How and why this vitiation takes place will appear in subsequent paragraphs.

III. We now come to the adjustment entries at the close of the period. They should appear in red ink, since they serve merely for the calculation of the results of the period and do not represent current transactions or events. Fundamentally, as

\* Remember that interest accrued is a value that belongs fundamentally to the notes; it is a mere bookkeeping convenience to record at face rather than real value.

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will appear, they are items which in nature belong each on the opposite side of where they now stand. And at the beginning of the following period they are transposed where they naturally belong, and then appear in regular black ink.

Take the first debit, all interest accrued on notes payable at the close of the period. Observe the interest accrued at the beginning of the period had been credited, also any that had accrued on new notes payable assumed during the period; and all interest payments made during the period had been debited. The credits were (1) liability at the beginning of the period, and (2) increase in liability due to new notes assumed; the debits were (1) decreases in liability due to payment, and (2) the liability at the close of the period. There ought to be a third credit, an increase in liability resulting from the interest accrued from day to day while the notes were in possession; then the debit and credit items would balance. The amount of the third credit must therefore be the difference between the two credits and the two debits.\*

Now, if this amount were inserted as a credit, it would measure the increase of liability during the period due to the passage of time while the notes were in possession. The corresponding debit would be a decrease in proprietorship, measuring the real interest cost of the notes held during the period, and it might be charged directly to Loss and Gain.

Turn now to the first credit at the close of the period, all interest accrued at that time on notes receivable. The reasoning is just the same as that in the previous paragraph, except that the items appear reversed, debits where before we had credits, and *vice versa*. Now, the interest accrued from day to day due to the passage of time should appear as a debit, being an increase in note values or assets owned. The corresponding credit would measure the real interest earnings of the notes held during the period, and again, it might be recorded directly in Loss and Gain.

\* The calculation amounts to this, obviously: (1) The balance interest accrued at the beginning of the period + (2) increases due to new notes assumed during the period + (3) increases due to the passage of time (accrued from day to day) + (4) decreases due to interest payments = (5) the balance interest accrued at the close of the period (which is found from the note records). All the values in this equation are known except (3), which, then, may be derived. We may restate the equation thus: (1) the balance interest accrued at the beginning of the period + (2) increases due to new notes assumed during the period + (3) increases due to passage of time = (4) decrease due to interest payments + (5) balance interest accrued at the close of the period. If this grouping is reversed, we have the items exactly as they appear, or should appear, in the interest account.

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The second debit at the close of the period is discount due at that time on notes receivable. Observe: (1) The discount due at the beginning of the period was credited (as an offset to overstated note values); and (2) the increase in discount due on new notes acquired during the period was credited; (3) the discount due on notes prepaid during the period was debited; and, finally, (4) the discount due at the close of the period (which may be calculated from your note records) was debited. There should be a third debit, decrease in discount due to the passage of time as the notes approach their face value. This may be derived and inserted.\*

Obviously, this decrease in discount is in reality an increase in note value, so that fundamentally this debit represents an increase in assets. The corresponding entry would be an increase in proprietorship, showing the earnings of the non-interest bearing notes held during the period, and might be recorded directly in Loss and Gain.†

Finally, consider the second credit at the close of the period, discount due at the time on notes payable. Again, the reasoning is the same as in the previous paragraph, but the items are reversed. The decrease in discount due to the passage of time should appear as a credit, being fundamentally an increase in liability, *i. e.*, in the note value owed. The corresponding debit would record the interest cost of the non-interest bearing notes held during the period, and might appear directly in Loss and Gain.

The individual calculations made in the last four paragraphs are in fact omitted in practice: indeed they could not well be made individually through the Interest account as it has been presented. However, all the facts that have entered into the calculations appear in the account, so that by properly separating the items the results could be obtained as indicated. What in reality is done, after all the entries have been made as indicated on page 249 is this: the sum of the debits is taken likewise of the credits, and the difference between the two is inserted on the smaller side; then, the corresponding debit or credit is placed in Loss and Gain or some other proprietorship account.

\* The calculation is similar to that presented in the previous footnote.

† Contrary to the views at least tacitly assumed by most writers, all notes receivable earn interest whether on the face they appear as interest or non-interest bearing. Likewise, of course, all notes payable cost interest whether they are on the face interest bearing or not.

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In this procedure we essentially balance the items that determine increased assets values due to the passage of time against the items that indicate increased liabilities due to the passage of time, and we record only the difference in the account. The corresponding entry in Loss and Gain then indicates the net interest earnings above costs, or the net costs above earnings.\*

The Interest account has now been completely balanced and closed up for the period, and the red ink balances entered at the close of the period become the opening items at the beginning of the succeeding period, each being transferred in black opposite where it has just appeared in red. The procedure then continues as explained for the preceding period.

\* Thus, if the increased asset values due to the passage of time are greater than the increased liability values, the difference is debited to Interest (a net increase in assets), and is credited to Loss and Gain (a net gain above costs). If the other way around, the difference is credited to Interest (a net increase in liability), and is debited to Loss and Gain (a net cost above earnings).

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## EDITORIAL

### The Recognition of the Efficient

One of the most remarkable changes which is taking place in this era of great changes is the tendency everywhere apparent to call upon the efficient and the expert to do those things which in the recent past have been considered in the province of the inefficient solely. It is one of the hopeful signs of the times that together with the fundamental transformations of economic and industrial conditions there comes an irresistible demand by the people—that great bulk of public opinion so frequently and so erroneously described as the unreasoning masses—that in the doing of public or corporate work the agents employed shall be qualified by ability and not by personal favor merely.

As recently as the close of the last century this movement toward efficiency was at its beginning. Today it is only a very new and hesitating development; for there are hosts of obstacles in the way of progress, and the evolution will of necessity be slow. But it will be none the less sure. The time is certainly passing when the people will tolerate the utilization of the unqualified for purposes of the common benefit.

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Many and outstanding are the instances of the tendency toward intrusting public matters to expert agency. The various state commissions charged with the task of reconstructing and adjusting systems and methods of control of state affairs are part of the general trend, and as a whole their efforts, although often hampered by mistaken excesses and unnecessary radicalism, are for the ultimate welfare of the nation. In countless cities wherein until lately the rule of the "boss" has been absolute we now find the people gradually asserting their rights and demanding with insistent voice that there shall be a change.

In federal affairs the new idea is most apparent. The recommendations of the President's Efficiency and Economy Commission, based upon amazing discoveries of inefficiency and waste in nearly every department of the Governmental service, may not be well received by the old-school politicians who still constitute a large and influential part of the membership of Congress; but it is not to be doubted that the time is drawing near when we as a nation shall take our place beside the other civilized nations of the world and conduct our fiscal affairs on business-like principles and with the aid of a budget. At the time of writing these notes it is not known what effect the recent change of administration will have upon the personnel or title of the economy commission; but we have no doubt that the general principle involved will continue to find favor. It would be incredible to predict otherwise. In the things which make for public betterment it would be folly to foretell retrogression of serious character.

A further and vastly significant development in the increasing employment of the efficient is to be found in the attitude which Congress itself now takes in its relations with experts in all departments of work. There was a time, not so far in the past that most of us cannot remember it, when many of the national legislators went their several and devious ways rejoicing, caring nothing whatever whether the laws by them enacted were based upon sound or unsound foundations. But today all that is changed and the advice of the recognized expert is sought.

As a concrete and gratifying instance of this we may refer to the fact that public accountants have been called upon to give advice in regard to some of the most important measures

### *Editorial*

now under consideration by the committees intrusted with their preparation. It will be remembered how absurd was the attitude of the powers that were at Washington when the Payne-Aldrich tariff act was rushed through the houses of Congress and how the solemn warning of those who knew was ignored by those who thought they knew but did not. Today the warnings have been heeded in some vital particulars and it has been recognized that advice disinterestedly given by men most qualified to know their subject should be received and weighed—not, as was the old way, laughed out of court.

And the consequence of all these changes will soon be felt in every part of the country. Already the benefits are seen by those whose perceptions are not blunted wilfully by disuse. Great betterment of national, civic and personal conditions is coming. It may be that much of the good advice will be disregarded when the time to "play politics" comes to pass—we have not reached the political millenium. Nevertheless the benefits suggested will accrue sooner or later and it is an immense triumph to have converted some of the powers in high places of the nation, the state and the municipality to a belief in the value of the man who knows.

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### Jack Horner, C. P. A.

A careful consideration of the personal history of the "Immortal Horner," as Dickens calls him, leads to the belief that he may have been an accountant, of a kind which fortunately is not abundant but may be found in various parts of the country. We have it on unimpeachable authority that:

Little Jack Horner sat in a *corner*  
Eating a Christmas pie.  
He put in his thumb and pulled out a *plum*  
And said: "*What a great boy am I!*"

We have taken the liberty of italicizing some of the words in the familiar biography, because they so aptly apply to the class of men to whom reference is made. These are the men who sit in a corner of the accounting profession and if they can pull out an occasional plum—or even a currant or two—are satisfied and

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care not for the important part of the banquet. They are the men who belong to the accounting trade and have no part in the profession of accountancy.

Unfortunately the number of them is such that they are able to work a considerable injury. They act as a brake upon the wheels of progress and they seriously affect the professional standard. Yet these very men would repudiate the idea of belonging to any such category. They do not see that by their selfish failure to take an interest in their work, aside from the temporary and pecuniary aspect of it, they are staying the advance of the profession. It is a remarkable thing, but a true one, that a considerable number of the public accountants of the country are so deeply imbued with the commercialism of the work that they cannot discern the nobler and more lasting part of it.

If only it were possible to impress upon every accountant the truly great responsibility which rests upon him and the enormous task which confronts the profession as a whole, it would be the sure means of enlisting the active professional interest of all. The trouble seems to be that there is no willingness to look beyond one's own office windows. We have spoken in other places of the lack of *esprit de corps*; but that is all part of the same general narrowness of view—part of the trade, as distinguished from the profession.

In time to come, no doubt, the professional pride and enthusiasm will be wider spread, but for the time being the regrettable truth is that an index of accountants would reveal far too much of Jack Horner, C.P.A., masquerading under other names.

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### A Gratifying Recognition

A new charter is being prepared for the city of Cleveland, Ohio, under the supervision of a committee on charter revision. Nine gentlemen representing various interests and activities of the city were appointed by the mayor as a committee to nominate fifteen members who should constitute the committee on charter revision. It will afford much satisfaction to accountants generally to know that in making up the committee of fifteen to undertake the important and noteworthy duty of revising the

*Editorial*

city charter, the profession of accountancy was recognized by the selection of Carl H. Nau, C.P.A., of Cleveland, as one of the number.

This honor is not only a fitting recognition of Mr. Nau's ability and high standing, but is also a recognition of the fact that the services of a trained accountant are needed when broad questions of this character are to be considered. Further, it evidences a growing public appreciation of the possibilities and the importance of accountancy, which is most gratifying.

## Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

### PROBLEM No. 16 (DEMONSTRATION)

The Investment Securities Company began business on January 1, 1912, with a paid-in capital of \$2,000,000, for which stock was issued.

During the year the following transactions took place: January 1, 1912, purchased 200 shares of American Shoe Company stock at 102½ and  $\frac{3}{8}$ ; 50M American Motor 4's (interest payable semi-annually on January 1 and July 1—bond to run 6 years) at 102½ and  $\frac{3}{8}$ ; January 17, purchased at private sale 2,000 shares (entire capital stock) Sunshine Varnish Company at 103; July 1, purchased 50M Wheeling and Lake Erie 4's (to yield 4.7%, interest January 1 and July 1—18 years to run) for \$45,780.25 and brokerage  $\frac{1}{8}$ ; 5,000 shares (entire capital stock) of the New York City Properties Company at an average price of 110 and  $\frac{1}{8}$ ; 500 shares (entire capital stock) of the Spot-Light Lamp Company at an average price of 75¾ and  $\frac{3}{8}$ . The sales were: March 31, 10M American Motor 4's at 105½ less  $\frac{3}{8}$  and accrued interest \$100; September 30, 20M Wheeling & Lake Erie 4's at 98 less  $\frac{3}{8}$  and accrued interest \$200.

American Shoe paid a stock dividend of 4% on August 1st; Sunshine Varnish a cash dividend of 4% on September 15th. The New York City Properties stock was deposited with a trustee on October 1, 1912, as security for an issue of \$300,000 collateral trust 5% gold bonds, due October 1, 1922, interest April 1st and October 1st, which were sold at par. The New York City Properties stock paid a 10% dividend on November 15, 1912. The yield on American Motor 4's, based on a cost of \$51,342.44, is 3½%. The surplus on the Sunshine Varnish Company's balance sheet at December 31, 1912, was \$45,750; that on the New York City Properties, \$125,000. There was a deficit of \$10,000 on the balance sheet of the Spot-Light Lamp Company at December 31, 1912.

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Provide for amortization or accumulation in the case of bonds; revalue stocks in accordance with the respective balance sheets; and prepare:

- (a) General balance sheet, December 31, 1912.
  - (b) Statement of income and profit and loss for the year.
- 

**SOLUTION TO PROBLEM No. 16**

**JOURNAL ENTRIES**

Jan. 1	1912	American Motor 4's .....	\$ 29.94		
		To profit and loss .....		\$ 29.94	
<hr/>					
		To adjust cost of 50M Am. Motor 4's purchased, so as to place them on an exact 3½% basis.			
Mar. 31		Sales—American Motor 4's .....	10,268.49		
		To American Motor 4's .....		10,268.49	
		To transfer cost of 10M Am. Motor 4's, representing 1/5 of 50M at \$51,342.44, to sales of same.			
		Interest on bonds .....		10.15	
		To sales—American Motor 4's .....			10.15
		For amortization of premium on 10M Am. Motor 4's sold, being the difference between \$100, the accrued interest at time of sale and ¼ of 3½% on \$10,268.49.			
June 30		Accrued interest on American Motor 4's...		800.00	
		To interest on bonds .....			718.79
		American Motor 4's .....			81.21
		To accrue interest on 40M Am. Motor 4's for the six months ended June 30, 1912, and apportion same to interest on bonds and amortization of premium as follows:			
		2% (½ of 4%) on \$40,000.00 ... \$800.00			
		1¾% (½ of 3½%) on \$41,073.95 ... 718.79			
		Amortization .....	\$ 81.21		
		Accrued interest on W. & L. E. 4's.....		1,000.00	
		Wheeling & L. E. 4's .....		75.83	
		To interest on bonds .....			1,075.83

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To accrue interest on 50M W. & L. E. 4's for the six months ended June 30, 1912, and apportion same to accrued interest and accumulation of discount as follows:

2.35% ( $\frac{1}{2}$  of 4.7%) on \$45,780.25...\$1,075.83  
2% ( $\frac{1}{2}$  of 4%) on \$50,000.00...1,000.00

Accumulation ..... \$ 75.83

Aug. 1	American Shoe stock .....	800.00	
	To profit and loss surplus .....		800.00
For 4% stock dividend.			
Sept. 30	Sales—W. & L. E. 4's .....	18,342.43	
	To W. & L. E. 4's .....		18,342.43
To transfer cost of 20M W. & L. E. 4's, representing $\frac{2}{5}$ of 50M at \$45,780.25 plus \$75.83, to sales of same.			
Sept. 30	Sales—W. & L. E. 4's .....	15.52	
	To interest on bonds .....		15.52
For accumulation of discount on 20M W. & L. E. 4's sold, being the difference between \$200, the accrued interest at time of sale and $\frac{1}{4}$ of 4.7% on \$18,342.43.			
Dec. 31	Sunshine Varnish stock .....	39,750.00	
	N. Y. Properties stock .....	74,375.00	
	Spotlight Lamp stock .....	2,062.50	
	To reserve for revaluations of securities .....		116,187.50
For revaluations of above securities in accordance with the values indicated by their respective balance sheets.			
	Accrued interest on Am. Motor 4's .....	800.00	
	To interest on bonds .....		717.37
	American Motor 4's .....		82.63
To accrue interest on 40M Am. Motor 4's for the six months ended December 31, 1912, and apportion same to interest on bonds and amortization of premium as follows:			
	2% ( $\frac{1}{2}$ of 4%) on \$40,000.00...\$800.00 1 $\frac{3}{4}$ % ( $\frac{1}{2}$ of 3 $\frac{1}{2}$ %) on \$40,992.74... <u>717.37</u>		
	Amortization .....	\$ 82.63	
	Accrued interest on W. & L. E. 4's.....	600.00	
	Wheeling & L. E. 4's .....		46.57
	To interest on bonds .....		646.57

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To accrue interest on 30M W. & L. E. 4's for the six months ended June 30, 1912, and apportion same to accrued interest and accumulation of discount as follows:

$2.35\% \left( \frac{1}{2} \text{ of } 4.7\% \right) \text{ on } \$27,513.65 \dots \$646.57$   
 $2\% \quad \left( \frac{1}{2} \text{ of } 4\% \right) \text{ on } \$30,000.00 \dots 600.00$

Accumulation ..... \$ 46.57

Interest on bonds payable .....	4,500.00
To interest accrued on Coll. Trust 6's	4,500.00

Interest on \$300,000 from Oct. 1 to Dec. 31, 1912, at 6%.

Sales—American Motor 4's .....	279.16
Sales—Wheeling & L. E. 4's .....	1,217.05
To profit and loss .....	1,496.21

To close out sales accounts and show profits on respective sales as indicated.

**SKELETON LEDGER ACCOUNTS**

<b>Cash</b>		<b>Capital Stock</b>	
\$2,390,212.50	\$912,242.75		\$2,000,000.00
<i>American Shoe Stock</i>			
lock div. ....	\$20,525.00 800.00	10M ..... \$10,268.49 P. & L. .... 279.16	10M ..... \$10,537.50 Amort. .... 10.15
<i>American Motor 4's</i>			
W. & L. ....	\$51,312.50 29.94	10M ..... \$10,268.49 Amort. .... 81.21 Amort. .... 82.63	20M ..... \$18,342.43 Accum. ..... 15.52 P. & L. .... 1,217.05
<i>Sunshine Varnish Stock</i>			
evaluation....	\$206,000.00 39,750.00		\$300,000.00
<i>Wheeling &amp; Lake Erie 4's</i>			
W. & L. ....	\$45,780.25 75.83 Accum. .... 40.57	20M ..... \$18,342.43	
<i>New York City Properties Stock</i>			
evaluation....	\$550,625.00 74,375.00		\$116,187.50
<i>Spot-Light Lamp Stock</i>			
evaluation....	\$37,937.50 2,062.50		
<i>Interest on Bonds Receivable</i>			
		Am. Mo. 4's ... \$ 10.15	10M Am. Mo. 4's \$ 100.00 Am. Mo. 4's ... 718.79 W. & L. E. 4's. 1,075.83 20M W. & L. E. 4's 200.00 Do. .... 15.52 Am. Mo. 4's... 717.37 W. & L. E. 4's. 646.57

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SKELETON LEDGER ACCOUNTS (*Continued*)

Accrued Interest on Bonds

Am. Mo. 4's ..	\$ 800.00	Cash .....	\$ 800.00
W. & L. E. 4's.	1,000.00	Cash .....	1,000.00
Am. Mo. 4's ..	800.00		
W. & L. E. 4's.	600.00		

Dividends on Stocks Owned

Sunshine .....	\$ 8,00
N. Y. C. ....	50,00

Interest on Bonds Payable

\$ 4,500.00

Interest Accrued on Coll. Trust 6's

\$4.50x

Profit and Loss

Brokerage .....	\$ 62.50	Am. Mo. 4's ...	\$ 29
		Profit Am. Mo.	
		4's .....	279
		Profit W. & L.	
		E. 4's .....	1,217

Profit and Loss Surplus

Am. Shoe ..... \$ 800

THE INVESTMENT SECURITIES COMPANY

CASH Book

Date 1912	Receipts	Amount
Jan. 1	Capital Stock .....	\$2,000,000.00
Mar. 31	10M Am. Motor 4's at 105½ less ½ .....	10,537.50
	Accrued interest on above .....	100.00
July 1	Interest on 40M Am. Motor 4's .....	800.00
	Interest on 50M W. & L. E. 4's .....	1,000.00
Sept. 15	Sunshine dividend, 4% on \$200,000 .....	8,000.00
Sept. 30	20M W. & L. E. 4's at 98 less ½ .....	19,575.00
	Accrued interest on above .....	200.00
Oct. 1	Collateral Trust 5's sold at par .....	300,000.00
Nov. 15	N. Y. C. Prop. dividend, 10% on \$500,000 .....	50,000.00
		\$2,300,212.50

Date 1912	Disbursements	Amount
Jan. 1	200 Am. Shoe at 102½ and ½ .....	\$ 20,525.00
	50M Am. Motor 4's, 102½ and ½ .....	51,312.50
Jan. 17	2,000 Sunshine Varnish at 103 .....	206,000.00
July 1	50M W. & L. E. 4's (\$45,780.25 and \$62.50) .....	45,842.75
	5,000 N. Y. City Props. at 110 and ½ .....	550,625.00
	500 Spot-light at 75¾ and ½ .....	37,937.50
Dec. 31	Balance .....	1,477,969.75
		\$2,300,212.50

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TRIAL BALANCE—DECEMBER 31, 1912 (before closing)

Debits	Credits
Cash .....	\$1,477,969.75
Am. Shoe stock .....	21,325.00
Am. Motor 4's .....	40,910.11
Sunshine Varnish Co. ....	245,750.00
Wheeling & L. E. 4's..	27,560.22
N. Y. City Properties stock .....	625,000.00
Spot-light Lamp stock.	40,000.00
Accrued int. on bonds.	1,400.00
Int. on bonds payable..	4,500.00
	<u>\$2,484,415.08</u>
	<u>\$2,484,415.08</u>

THE INVESTMENT SECURITIES COMPANY

GENERAL BALANCE SHEET—DECEMBER 31, 1912

Assets	Liabilities and Capital
Securities owned *.....	\$1,000,545.33
Cash .....	1,477,969.75
Accrued interest on bonds .....	1,400.00
Total assets .....	<u>\$2,479,915.08</u>
	<u>\$2,479,915.08</u>

THE INVESTMENT SECURITIES COMPANY

STATEMENT OF INCOME AND PROFIT AND LOSS FOR THE YEAR ENDED  
DECEMBER 31, 1912

Gross income from investments:

Dividends on stocks .....	\$58,000.00
Interest on bonds receivable .....	3,463.93
	<u>      </u>

Total income .....	\$61,463.93
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Expense:

Interest on bonds payable .....	4,500.00
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Net income from investments .....	\$56,963.93
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Profit and loss credits:

Adjustment of cost—Am. Motor 4's .....	\$ 29.94
Profits on sales of securities .....	1,400.21
	<u>      </u>

\* N. Y. City Properties stock (par value \$500,000, book value \$625,000) deposited to secure Collateral Trust 6's.

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Total .....	\$58,490.08
Profit and loss charge—brokerage .....	62.50
Profit and loss—surplus .....	\$58,427.58
Add—stock dividend—Am. Shoe stock .....	800.00
Profit and loss surplus—Dec. 31, 1912 .....	<u>\$59,227.58</u>

Few comments are necessary on this problem since most of the entries are self-explanatory. It would perhaps make the demonstration clearer if all transactions, cash as well as others, were expressed in journal entry form chronologically. This, however, would either cause a duplication, if the cash book were also shown, or deprive the solution of a very important part of its content. The entries in the cash book are given as they would appear in practice, and the items, as there, give only a hint as to supplementary adjustments which must be made through the medium of the journal. Examples of this are the amortization of premium and accumulation of discount and transferring the cost of sales to the sales account when sales of securities take place. The latter practice is consistent and clear, but I believe will be the exception rather than the rule. Too often will the sale be simply credited to the stock account. The result is a mixed account which must be analyzed at closing time since the stock remaining in the account will have been affected by the profit or loss on the transaction.

In the matter of amortization and accumulation a word or two may be said. Amortization is the term used to express the gradual reduction, through the application of a part of the interest earned, of premium on bonds. Accumulation is the term used to express the gradual increase, through the application of a part of the interest earned, of a bond purchased below par. In either case the object is to bring the bond to par at maturity. Amortization is sometimes applied to discount as well as premium but erroneously so. Such use of the term probably follows the thought that it is the discount which is being reduced. While this is of course true, consistency requires that the bond be looked upon as increasing in amount as time passes until at maturity it reaches par. The best illustration of the necessity for care in the matter of amortization and accumulation is the so-called life-tenant and remainderman case. If an estate is left so that one person is to receive the income during life and

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a second the principal upon the death of the first person, then the interest must be carefully apportioned. A bond purchased at 112 will cost \$1,120. At maturity it will be redeemed at \$1,000. If the interest in full shall have been paid to the life-tenant, the estate will at time of maturity of the bond have been depleted to the extent of \$120. As a matter of justice and equity, part of the interest must be applied to the reduction of the premium while the balance may be paid to the life-tenant. The interest received is called the nominal. The interest paid to the life-tenant the effective.

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**PROBLEM No 16-a**

The Wall Street Securities Company began business on January 1, 1912, with a paid-in capital of \$1,000,000 for which stock was issued.

The transactions during the ensuing six months were as follows: January 1, purchased 200 shares American Iron Company stock at 103 $\frac{3}{4}$  and  $\frac{1}{8}$ ; 50M C. M. & St. P. 6's (interest payable semi-annually on January 1 and July 1—bond to run 17 $\frac{1}{2}$  years) at 112 and  $\frac{1}{8}$ ; January 23, purchased at private sale 2,000 shares (entire capital stock) of the Hudson Brick Company at 105; July 1, purchased 50M Naugatuck Valley 4's (to yield 4.85%, interest January 1 and July 1—6 months to run) for \$49,792.53 and brokerage  $\frac{1}{8}$ ; entire capital stock (5,000 shares) Philadelphia Realties Company at an average price of 112 and  $\frac{1}{8}$ ; entire capital stock (500 shares) Yonkers Wall Paper Company at an average price of 78 $\frac{1}{2}$  and  $\frac{1}{8}$ . The sales were: April 30, 10M C. M. & St. P. 6's at 114 less  $\frac{1}{8}$  and accrued interest \$200; August 31, 10M Naugatuck Valley 4's at 98 less  $\frac{1}{8}$  and accrued interest \$66.67.

The American Iron Company paid a stock dividend of 5% on August 15th. Hudson Brick Company a cash dividend of 5% on September 15th. The Philadelphia Realties Company stock was deposited with a trustee on October 1, 1912, as security for an issue of 4,000 collateral trust 4 $\frac{1}{2}$ % gold bonds, due October 1, 1922, interest April 1st and October 1st, which were sold at par. The Philadelphia Realties Company paid a dividend

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of 9% on November 15, 1912. The yield on C. M. and St. P. 6's, based on a cost of \$56,098.65, is 4.95%. The surplus on the balance sheet of the Hudson Brick Company at December 31, 1912, was \$50,000; that on the Philadelphia Realties Company, \$135,257.42. There was a deficit of \$12,538.26 on the balance sheet of The Yonkers Wall Paper Company at December 31, 1912.

Provide for amortization or accumulation in the case of bonds; revalue stocks in accordance with the respective balance sheets; and prepare:

- (a) General balance sheet, December 31, 1912.
- (b) Statement of income and profit and loss for the six months ended December 31, 1912.

# Pennsylvania C. P. A. Examinations of November, 1912

ANSWERS BY R. J. BENNETT, C.A., C.P.A.

## GENERAL ACCOUNTING (*Continued*)

### ANSWER TO QUESTION 10 (*Concluded*)\*

#### EXHIBIT D

##### CONDENSED BALANCE SHEET

City of Delaware, Pennsylvania, Jan. 1, 1912

<i>Assets</i>	<i>Liabilities</i>
<i>Capital Assets</i>	
Fixed properties:	
Remunerative and realizable:	
Public market ..	\$ 51,854.00
Unremunerative but realizable:	
City properties ..	\$296,214.04
School bldgs. ...	345,943.25
	642,157.29
Unremunerative and unrealizable: ..	
Bridges and viaducts .....	\$ 57,867.19
Paved streets ...	271,931.20
Paved sidewalks.	197,741.82
Macadam streets.	119,816.65
Sewerage system	231,065.55
Drainage system.	151,476.25
Official map ....	28,881.65
	1,058,780.31
<i>Personal Property and Assets for Capital Outlay</i>	
Tools and equipment.	\$ 10,008.80
Fire department ....	49,045.38
Live stock .....	8,025.00
Office furniture and fixtures .....	4,568.05
Almshouse .....	1,532.00
Material on hand ...	1,979.00
Sidewalk and sewer assessments uncollected .....	26,606.40
Sewer tax uncollected	637.11
Cash on hand .....	191,896.18
	294,297.92
<i>Capital Liabilities and Surplus</i>	
Bonded indebtedness .....	\$1,400,000.00
Unvouchedered invoices .....	16,000.00
Audited vouchers .....	5,401.80
Warrants payable .....	20,000.00
	\$1,441,401.80
Capital surplus .....	721,000.00
<i>Current Liabilities and Surplus</i>	
Unvouchedered invoices	\$12,103.40
Audited invoices .....	12,624.58
Warrants payable .....	11,900.00
	36,627.98
Revenue surplus .....	315,164.00

\* The first part of the answer to Question 10 appears in the March number of THE JOURNAL.

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*Sinking Fund Assets*

Investment by sinking fund commissioners	\$114,426.94
Sinking fund, cash...	885.34
	<hr/>
	115,312.28

*Current Assets*

Taxes uncollectible..	80,197.18
Delinquent taxes un- collected .....	26,720.92
Cash on hand for cur- rent expenses .....	244,873.98
	<hr/>
	351,791.98
	<hr/>
	\$2,514,193.78
	<hr/>

**QUESTION II**

A manufacturing company, owning many patents and constantly acquiring new ones, some by way of outright purchase and about an equal number being taken out as the result of the efforts of its own experimental department, asks you to outline the best method of dealing with this account, having in mind:

- (a) The ascertainment of costs of manufacture.
- (b) The annual balance sheet which is submitted to stockholders and to the general public.

Outline fully your views on this subject.

**ANSWER TO QUESTION II**

**Cost of Patents:**

Instead of buying all of its patents from others the company decides as an alternative to hire competent workmen and maintain an experimental department of its own, wherein new inventions are devised, completed, tested, and patented. If an invention is worth while after being patented, it may serve for a considerable time or it may have to be abandoned after a short service. In any case, however, whether the patent is purchased or taken out by the company itself, there is always the probability of its being superseded or rendered obsolete by a later and more suitable invention, thereby necessitating its abandonment for the more desirable article. Now, whether the company buys its patents from others or gets them out itself as a result of discoveries in its experimental department, there is usually considerable outlay in connection therewith. The purchased patent may cost a large sum which would, of course, be charged to Patents account. This account will contain a record of all patents purchased from others at the cost price. Since the patent right usually extends over a definite time (the maximum is 17 years) a proportionate amount should be written off each year. The amount written off, however, should be high enough

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to include the cost of abandoned patents from time to time, or otherwise such cost should be charged against the year in which the abandonment takes place, by a debit to Profit and Loss.

There is absolutely no doubt of the productive ability of an efficient experimental department, but the question immediately arises as to the disposition and allocation of the expenses thereof, the cost of maintenance, taking out patent rights, etc. Shall the expenditure for equipment, maintenance, salaries, and experimental purposes be (all or part) charged up to the year in which they occurred, or shall they be capitalized and then distributed over a term of years? If charged off during the year when incurred, shall they be included in the manufacturing costs or simply as a general expense? If they are to be distributed over a term of years, then how shall the time and amount be determined? Since the same annual outlay for maintenance is going on, is it desirable to defer any of the cost thereof?

**Disposition of Patents and Experimental Costs:**

All patents purchased of others should be charged to Patents account at the cost price thereof. A like disposition should be made of subsequent charges, expenses of protective litigation and the cost of securing patent assignments and shop rights from other persons. Such costs should be absorbed by annual depreciation charges during the life of the patents. An average amount could be assumed where there are several patents costing different amounts and having varying years of maturity, being careful to allocate the heavier portion to the earlier years of the patent. All patents acquired or taken out should be recorded separately in a book or on cards designed for that purpose, with appropriate addenda for any values attaching to matured or obsolete patent rights. It is true that many patents have a considerable value, even after maturity, which might be worth considering, but in that case a revaluing or appraisement could be made. Speaking generally, it is better to write off all patents during their legal existence. The accounts will contain the following:

**PATENTS ACCOUNT**

**Debit with:**

- The cost of patents acquired by purchase
- Subsequent charges for protecting the patents
- The cost of securing assignments and shop rights
- The cost of patents obtained in the experimental department

**Credit with:**

- The sale or transfer of any patents previously charged thereto
- Depreciation of patents based on time they have to run or on some other safe basis, and charged to production costs
- Obsolete or worthless patents charged off to Profit and Loss account
- Balance, being the net cost or book value of patents owned

Charge the experimental department with all expenditures in connection therewith, for cost of equipment, maintenance, salaries, cost of

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securing patent rights, etc. This might even be included in the Patents account, or an account might be maintained and called Patents and Experimental account. Since the annual cost of this department will be practically the same, or increasing if anything, and since it is maintained by the management without any assurance of lasting results, it would seem advisable to charge the entire running expenses thereof to Profit and Loss. This would include a reasonable depreciation on equipment. The cost of maintenance may, of course, be offset by returns from the sale of patents or rights, or from royalties received. It should also be credited with patents taken out and charged to Patents account. The value placed upon such patents should be determined by appraisement or by the estimated cost to produce them. Or it may be based upon the royalty income that would be derived from such an invention. In order, however, that the annual charge to Patents account may not fluctuate too severely it would seem good practice to capitalize a part of the experimental outlay from year to year. This could be retained in the Experimental Department account or else be charged to Patents account. The remainder should be charged to Profit and Loss. The account may appear as follows:

**EXPERIMENTAL DEPARTMENT**

Debit with :	Credit with :
Cost of equipment at time of purchase	Sale of patent rights or income from royalties, etc.
Cost of maintenance	Value of patents charged to Patents account
Salaries and expenses	Depreciation of equipment charged to Profit and Loss account
Cost of securing patent rights	Inventory at end of year, carried down
	Balance, charged to Profit and Loss account

The book value or appraised value of patents and equipment of the experimental department should appear in the balance sheet. They should be listed about as follows:

Patents and patent rights.

Experimental department equipment.

The second item might even include a certain amount of the maintenance expenses if it were deemed advisable, providing such expenses could be safely appraised. Indeed, some of the patents secured through the department may not prove valuable enough to justify their being included among the assets. Instead of including patent rights singly, as above suggested, they are frequently included with some other account, as "Goodwill, Patents, etc." or as "Patents and Goodwill." Sometimes they are permitted to remain in such accounts without depreciation, but that is obviously not a wise plan to adopt. It seems advisable in any case to underestimate the value of assets rather than to adopt an opposite course.

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QUESTION 12

Messrs. Brown & Wilson have applied to the Pennsylvania National Bank for a loan of \$20,000, and have submitted the following profit and loss account and balance sheet:

PROFIT AND LOSS ACCOUNT

For Year Ending June 30, 1912

Stock at July 1, 1911 .....	\$ 50,000.00
Purchases .....	40,000.00
Wages and salaries .....	8,000.00
Office expenses .....	7,000.00
Miscellaneous expenses .....	15,000.00
Interest on loans .....	2,700.00
Bad debts .....	800.00
Profit .....	<u>37,000.00</u>
Sales, less returns .....	\$160,500.00
Stock at June 30, 1912 .....	\$ 80,000.00
Dividends on investments .....	<u>75,000.00</u>
	\$160,500.00

BALANCE SHEET, JUNE 30, 1912

<b>Assets:</b>	
Book debts .....	\$250,000.00
Stock as per inventory .....	75,000.00
Investments at cost .....	50,000.00
Goodwill .....	10,000.00
Lease of premises .....	5,000.00
Furniture .....	1,000.00
Cash .....	<u>500.00</u>
	\$391,500.00
<b>Liabilities:</b>	
Trade creditors .....	\$344,500.00
Loans .....	27,000.00
Partner's capital at July 1, 1911 .....	\$ 8,000.00
Profit for year .....	<u>37,000.00</u>
Less drawings during year .....	\$45,000.00
	25,000.00
	<u>20,000.00</u>
	\$391,500.00

The bank has handed you these accounts and asked for your opinion as to the advisability of making the loan and as to the form in which the accounts are presented.

ANSWER TO QUESTION 12

The well equipped bank of today has its credit department in which applications for loans are carefully scrutinized. The head of this department is known by some official title as credit man, assistant cashier, or vice-president. The credit man may, of course, make a careful analysis

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of the statement presented, and even have additional information from the borrower to substantiate its validity, but only an examination of the accounts will determine whether or not the figures presented are true and conservative. Such an examination must be made by someone fully competent to perform the work. In this respect the certified public accountant can be of valuable assistance to the credit man, as is evidenced in the question under consideration. Without making an examination of the books it is impossible to give a correct opinion as to whether or not the loan of \$20,000 should be made, yet we are expected to do so from the information presented in the statement. To do this we must assume conditions such as would ordinarily be determined by an actual examination of the accounts.

There are many things in the statement submitted that cause one at first sight to advise against the loan, and even a careful analysis of the figures strengthens this decision. Unless there are good personal reasons for granting the loan, such as the standing and connections of the partners, there is not much to favor an affirmative report. If, however, the investments, amounting to \$50,000, could be turned over as security, there would be no question whatever regarding its allowance, provided the securities are as valuable as represented. Banks usually require that the quick assets be at least *twice the amount of the loan*, but in this case the margin is far from the desired ratio. The loan of \$27,000 already outstanding must no doubt be satisfied first, and possibly it is secured by the collateral. The amount owing to trade creditors is beyond all reason. One must be careful in an examination of a business to see that all liabilities are included, and that the assets given are not overstated or overvalued.

Amounts are all out of proportion. The personal accounts receivable and payable are entirely too large when compared with the firm's somewhat paltry capital and the volume of business transacted. The capital one year ago was \$8,000 and now it is \$20,000 with interim drawings of \$25,000 against profits. This amount should have been left in the business, since its withdrawal indicates an apparent willful attempt to use the firm for personal gain.

### **Profit and Loss Account:**

This account should be presented in such a way as to show the cost of goods sold, the gross profit, and the net profit, as indicated in the account shown below. It will be seen that the cost of goods sold is only \$15,000, while the sales amount to over five times that amount. This is evidently out of proportion, or else the goods are of such a nature as to command extraordinarily high prices. It is singular that out of \$90,000 worth of merchandise only one-sixth of that amount should be sold during the year. The investments are evidently paying well. The expenses seem out of reason, especially the office and miscellaneous, which amount to \$22,500. The interest on loans indicates that additional loans have been effected, but paid off during the year. The bad debts written off should, no doubt, be greater on such a large

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amount of book debts, especially since they have been standing so long. Even 1%, or \$2,500, would be a conservative estimate in any business.

PROFIT AND LOSS ACCOUNT

Year Ended June 30, 1912

Sales for year, less returns .....	\$80,000.00
Stock on hand July 1, 1911 .....	\$50,000.00
Purchases .....	40,000.00
	<hr/>
Less stock on hand June 30, 1912 .....	90,000.00
	75,000.00
<hr/>	
Cost of goods sold .....	15,000.00
<hr/>	
Gross profit .....	\$65,000.00
Add dividends on investments .....	5,500.00
<hr/>	
Total earnings .....	\$70,500.00
Deduct:	
The various expenses shown in the question, and more if desired, amounting to .....	33,500.00
<hr/>	
Balance, net profit for year .....	\$37,000.00

The Balance Sheet:

This statement will not stand close inspection. Cash is reduced to its lowest ebb. Furniture and goodwill are worthless as security for loans. The lease is no doubt valuable, but it is not the kind of an asset on which a loan could be based. The investments seem to be paying dividends and might be good security. No doubt the inventory is overstated, judging from the unreasonable proportions of items in the merchandise account. \$50,000 worth of goods were on hand at the first of the year, and if only \$15,000 worth was disposed of, why were additional purchases made and liabilities incurred? The book debts are three times the sales. On this basis it would seem that the object was to make sales but no collections. Evidently some of these debts have been owing for years, and since the terms of credit seldom extend over so long a time we must assume that they are not collectible. The trade creditors show every indication also of having stood for years. The stock handled is only \$90,000, while the liabilities owing are about four times that amount. Possibly the debtors and creditors are the same persons, thus indicating a net credit balance of \$94,500. The partners may even be included therein as creditors of the firm. At any rate, liabilities as a rule have to be paid, and we therefore admit them. Assume that both partners are included in the capital and drawings. The statement of condition should be reset about as follows:

BROWN & WILSON

STATEMENT OF CONDITION FOR THE BANK, JUNE 30, 1912

*Quick Assets*

Book debts .....	\$250,000.00
Merchandise on hand .....	75,000.00

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Investments at cost .....	50,000.00
Cash .....	500.00
Total quick assets .....	\$375,500.00

*Liabilities*

Trade creditors .....	\$344,500.00
Loans .....	27,000.00
Total liabilities .....	<u>371,500.00</u>
Firm's net worth .....	\$ 4,000.00

It will be seen that only the quick assets are included, as this is about all a bank cares for, though the present worth of the firm would include all the other assets. From the information given, however, it seems inexpedient to grant the loan.

Banks usually require of borrowers full information regarding their business affairs as well as a correct statement of their assets and liabilities. Forms are given borrowers to be filled in, and the searching questions to be answered supply full information regarding the concern and its business progress.

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QUESTION 13

What do you understand by Perpetual Inventory? How is it maintained and how may it be verified? What would you require in relation to such an inventory before accepting it in a balance sheet under your audit without qualifying your certificates?

ANSWER TO QUESTION 13

By "perpetual inventory" is meant a scheme for keeping account of merchandise received, disposed of, and on hand, in such a way as to determine at any time from the records the quantity and value of any particular article in stock. It is variably known as "continuous inventory," "going inventory," "book inventory," "stock record," etc. The term "continuous" is probably the most desirable though "perpetual" seems to have the preference by right of usage.

The idea of keeping a book inventory is not new, yet it is not used as extensively as one would suppose, due probably to the trouble and cost of keeping it going. Every business man keeps a going inventory of cash, but many of them shamefully neglect to keep careful records of other property that is in many cases equally as valuable. This apathy in respect to inventories is often the cause of heavy loss by waste, spoilage and disappearance of valuable stock or raw material. In many cases much more is lost because of this neglect than would pay for keeping the inventory.

The perpetual inventory, if properly kept, shows the quantity and value of material on hand, work in process, and finished stock. The management can thereby determine at any time without the trouble

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and cost of taking a physical inventory the exact quantity and value of goods on hand, a feature which is specially valuable in case weekly or monthly statements are required. The most desirable plan of keeping the inventory is by means of cards, though loose-leaf or bound books will also answer the purpose. A card or page is devoted to the recording of a single kind or quantity of property in numbers, pounds, yards, gallons or tons. The quantity received minus the quantity disposed of, by sale or use, gives the quantity on hand. Of course this plan of keeping inventory is not so desirable where a great number of goods are handled, as in a retail store, because the cost of keeping it up to date and accurate, costs more than the information is worth. As an alternative, a physical inventory must be taken, but this is frequently done at a time when the stock is low or when business is slack. The continuous inventory can be used for all properties handled, including supplies, tools, rolling stock, fixed assets, etc.

The perpetual inventory or stock record can be verified by comparison from time to time with the goods which it represents. This should be done as frequently as possible by actual inspection, so that inventory-taking may be constantly going on. The management, as a result of constant verifications, knows at any time just how much of any particular article is on hand, rendering it unnecessary to carry a heavy supply of goods. The general ledger controlling account of stock, material, or work in process will show at any time the value, and possibly quantity, of goods on hand. This amount can be verified by a summary of the inventory cards. Sometimes differences occur and of course need adjustment. The inventory card or account should state where the particular merchandise is stored in order that it may be easily located. The particular bin, section, shelf or rack where it is kept should be numbered or charted with some means of identification. While the book inventory cannot always be depended upon as an exact check on merchandise, yet if frequent verifications are made, it is usually near enough for practical purposes. Differences, if any, can be easily adjusted when discovered.

While the auditor cannot be held responsible for the valuation of the inventories, yet he should make it his business to see that the figures given are not overstated and that prices are correct. He should examine at least a part of the records in order to verify the amounts and computations, and he might even compare by actual inspection some of the stock cards with the actual stock on hand. This would not take long and would satisfy him as to whether or not the perpetual inventory is really efficient. The auditor should not jump at conclusions. He may state in his report that inventories have been accepted at their book value, with the tests as to accuracy just mentioned, but in addition to this he should require the "O. K." of some official or responsible employee with respect to its accuracy. Indeed the assurance of two or three officials as to quantities and valuations is preferable. The auditor should see that values are taken at cost and not at the selling price. Sometimes inbound charges, duty, freight, etc., are added, in which case it is his duty to see that these are not inflated. His main object in

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any case is to determine whether or not the book records are as stated.

Article.....	RECEIVED			DELIVERED			BALANCE		
	Date	Sheet No.	Quantity	Rate	Amount	Date	Quantity	Rate	Amount
Classification No...									
Maximum.....									
Minimum.....									
Bin No.....									

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QUESTION 14

A manufacturer owes \$100,000.00 on his plant at 5% per annum, due at the end of five years from date. He secures an agreement, however, to pay the debt in equal annual installments which will include principal and interest. What amount is he required to pay each year?

ANSWER TO QUESTION 14

This problem is an interesting one from a mathematical standpoint, but not of so much value as a practical accounting proposition. Every practicing accountant, however, should have a thorough knowledge of compound interest and its applications, and at least a working knowledge of annuities and the methods of computing problems in which they are involved. It is true that annuity and bond tables are usually consulted for information of this kind, yet that does not relieve the accountant from the responsibility of mastering the subject, and candidates should be prepared to answer such questions on examination. This requires some knowledge of compound interest, annuities, logarithms, and the use of annuity and bond tables.

We see that in order to pay off the mortgage and interest the same amount of money must be appropriated each year for five years. Each instalment includes interest on the entire debt then outstanding, as well as part of the principal. It is necessary to find what equal annual payment is equivalent to \$100,000 invested at 5%—in other words, what annuity can be bought for \$100,000 when money is worth 5% per annum. For the benefit of students, the following rule is given:

Rule—To find the amount of an annuity to run a given time, that can be bought for a given sum, when money is at a given rate: first find the compound amount of the given sum for the given time at the given rate; then divide this by the final value of an annuity of \$1 for the same time and at the same rate. In the question under review it will apply as follows:

$1.05^5 = \$1.27628156$ .  $\$1.27628156 \times \$100,000 = \$127,628.156$ . Amount of \$1.00 annuity for 5 years = \$5.52563125. (Get this from annuity tables or compute:  $[.27628156 \div 5] \times 100 = 5.52563125$ .) Then to get the required annuity we take:  $\$127,628.156 \div 5.52563125 = \$23,097.48$ .

Another rule—Determine the final value of an annuity of \$1.00 for the given time at the given rate, then divide this result by the amount of \$1.00 compounded for the given time at the given rate; the resultant amount is the present worth of an annuity of \$1.00 for the given time and rate. Divide this present worth into the given sum to get the required answer. Its application is as follows:

$$\frac{5.52563125}{1.27628156} = \$4.32947667, \text{ the present worth of } \$1.00 \text{ annuity.}$$

$$\frac{\$100,000.00}{4.32947667} = \$23,097.48, \text{ the annuity required.}$$

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The answer, then, is \$23,097.48, the annual payment required. The analysis of amounts is shown in the following table:

*Table of Equal Annual Instalments*

Principal \$100,000.00, payable in 5 years at 5%

<i>Year</i>	<i>Annual Instalment</i>	<i>Interest</i>	<i>Principal</i>	<i>Remaining Principal</i>
1	\$23,097.48	\$5,000.00	\$18,097.48	\$81,902.52
2	23,097.48	4,095.13	19,002.35	62,900.17
3	23,097.48	3,145.01	19,952.47	42,947.70
4	23,097.48	2,147.38	20,950.10	21,097.60
5	23,097.48	1,099.88	21,997.60	nil
	<b>\$115,487.40</b>	<b>\$15,487.40</b>	<b>\$100,000.00</b>	

The question can be answered easily by algebra, but there would be little or nothing gained by so doing.

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QUESTION 15

A company, whose accounts you are auditing, shows among its assets an item of \$100,000 for a lease upon a warehouse. The lease was acquired ten years ago and has still forty years to run. The book value consists of \$50,000 paid for the lease at the time it was acquired and an additional \$50,000 expended upon rebuilding property five years ago. Nothing has heretofore been written off the asset account and its present realizable value is conservatively estimated at \$150,000.

In preparing the accounts for the present year the following methods have been proposed by various officials and you are asked to decide which one should be adopted, giving your reasons therefor, as well as the reasons upon which you base your decision in rejecting the others:

- (1) The property being worth more than the book value, nothing should be written off.
- (2) Such profits as it is not desired to distribute in dividends may occasionally be written off in reduction of the account.
- (3) An equal one-fortieth part should be written off annually.
- (4) A sinking fund should be created that would produce \$100,000 upon the expiry of the lease.

ANSWER TO QUESTION 15

We will assume that the warehouse is used for storing the company's own merchandise. The \$50,000 paid for the lease may constitute the entire compensation for the use of the warehouse, or it may be simply a bonus in addition to which a yearly rental is paid; on the other hand, it may represent an amount paid to the former holder of the lease as an inducement to relinquish it to the company. The property must be kept

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in condition during the currency of the lease, either by the lessor or by the lessee, but this depends entirely upon the agreement at the time the lease was made. It is evident that the company agreed to make its own improvements since it has already expended \$50,000 on the property. At the expiration of the lease, the ownership of the property will revert to the owner. Sometimes an option for the extension of the lease is contained in the original contract, but this would have no bearing on the disposition of amounts presented in the question. The company may even be allowed compensation for improvements on the property in excess of its condition at the time of the lease, but we have no evidence of this. The ultimate conclusion then is that the entire \$100,000 must be exhausted during the life of the lease, so that at the end of the fiftieth year, the entire amount will have been wiped off. Since ten years have already expired without any attention to depreciation of property or extinguishment of the lease, we conclude that it must be equitably distributed over the forty years which still remain. It is evident that part of it should have been written off during the past decade, and to adjust matters we might even at this time charge one-fifth of the entire amount against surplus. No matter how it is done, the stockholders are the ones who must stand the depreciation. Then, if we distribute the entire amount over the remaining forty years, how shall it be done? Let us take up in order the different methods presented.

Plan 1. The fact that the lease and property are now considered worth \$150,000 has no bearing on the disposition of amounts. The company evidently could transfer the lease for this amount and take profit for \$50,000, but—unless it actually does this—it would be unwise to write this amount into the accounts, because it would have to be written off again. It would not represent actual profits, could not be paid in dividends, and, if the company stayed in its present location, the possible profit would be of no monetary value. If the entire \$100,000 were carried to maturity, it is obvious that it would all have to be written off in one year. This would give larger profits during the currency of the lease, and then show a tremendous loss in the final year. We shall reject this plan.

Plan 2. This is a haphazard method and undesirable. It is unscientific, would not provide uniform, yearly operating charges such as are needed for comparative purposes, and would not exhibit the real value of the asset. It would bring up annually the unpleasant task of deciding upon the amount to be charged off. This would in all probability cause unusually heavy expenses some years and none at all during others. This is not a good plan and we shall reject it also.

Plan 3. This plan seems equitable and has the merit of being easily understood and conveniently handled. It would wipe off the entire amount during the forty years by an annual charge of \$4,500 against profits and a corresponding credit to the lease account. It may be stated that under this plan the earlier years are made to carry a heavier burden than the terminating years, because of the consideration of interest on the

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amount invested. The first year's cost would be \$8,500, consisting of \$2,500 principal and \$6,000 interest. The final year's cost would obviously be \$2,650, including interest, \$150. This uneven charge may be offset, however, by a heavier outlay for repairs during the terminating years than at the beginning. The plan is popular and is undoubtedly used in the majority of cases where leaseholds are to be considered. It is not as scientific, however, as the one which follows.

Plan 4. It seems inadvisable to create a sinking fund simply to amortize a book account; what we really want is a desirable plan for diminishing and wiping off the \$100,000 during the next forty years. A sinking fund by rights consists of cash taken out of the business and placed in the hands of a trustee for investment to meet some particular debt at maturity. The assumption is that the installments plus the accumulation of interest thereon will amount to a given sum at a given date. This necessitates the withdrawal of cash from the business to earn a paltry 4 or 5 per cent when it could be earning a greater amount if left in the business.

A sinking fund is not needed in this case, unless perhaps for the repurchase of the lease at maturity, but that is not the point under consideration. Even if the sinking fund were created, it would be an asset, and the lease would also be standing as an asset. It is obvious that one debit cannot offset another debit; in that case, a "reserve for extinguishment of lease" would have to be created and made to agree at all times with the amount in the sinking fund. This would require an annual charge against profits and a credit to the reserve, likewise the consideration of revenue from the sinking fund investments. At maturity this reserve would be applied to the cancellation of the lease account, while the sinking fund cash would be returned to the company. On a 4 per cent basis the sinking fund installments would be \$1,052.35 per annum (\$100,000 divided by \$95.02551570, the final value of an annuity of \$1 for forty years).

The sinking fund method of wiping off a lease is a most desirable one, and we believe should be adopted in a case like this where a long time lease and a large amount is involved. In this case, the "reserve" mentioned above should be credited from year to year, and interest added just as would be done if actual money were invested in the sinking fund. In this way a scientific distribution will be made over the forty years, at the end of which the "reserve" can be applied to the cancellation of the lease. Instead of crediting a reserve, the yearly amount involved may be applied to the reduction of the lease account. We will adopt this plan, though as stated before Plan 3 has its merits and is more desirable where the sinking fund plan is likely to cause confusion.

We might look at the matter in another light, and consider the \$100,000 as the present worth of an annuity of so much for forty years. The amount of such annuity will depend on the rate of interest used. On a 6 per cent basis it is \$6,646.15, which amount would be charged

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to profit and loss and credited to the lease account after deducting interest on the balance of the lease. Thus the first year's charge would be \$646.15—the annuity less 6 per cent interest on \$100,000. The second year's interest credit would be 6 per cent on \$99,353.85; and so on.

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QUESTION 16

The Atlas Trading Company leases a store for a period of ten years at a total rental of \$450,000, to be paid in monthly installments of \$3,750 each. Before the lease goes into effect, however, an arrangement is entered into whereby the company agrees to pay \$25,000 on the date upon which the lease takes effect. For this payment they are to receive a credit of \$30,000, applying on the total rental of \$450,000, the difference between the amount of the credit and the amount actually paid being intended to represent compound interest on the advance.

Under the revised lease the company agrees to make monthly payments for the original period of ten years at the rate of \$3,500 per month.

State concisely how you would treat upon the books of the company the transactions arising under this lease.

ANSWER TO QUESTION 16

It is not uncommon for owners of properties to require a deposit, bonus, or prepayment on account of future rent installments. This precautionary measure serves as a reserve against possible loss to the landlord through default in monthly payments. It matters little how many agreements or leases may have been drawn up and revised later; we are concerned in but the one which is finally decided upon. It is to be followed to the letter, and the first arrangement here may be disregarded.

According to the final or revised lease under consideration, a pre-payment of \$25,000 has been made, and monthly rentals of \$3,500 are to be continued in addition thereto for a period of ten years. Because of the deposit of \$25,000 a deduction of \$5,000 has been made from the aggregate rental of \$450,000 to serve as compound interest on the advance rental payments. We may not take this reduction of \$5,000 as a profit just yet because it represents the entire ten years. It may rightfully be credited to some appropriate account, however, and then amortized or spread as profits over the entire term of the lease. This would give a profit of \$500 per year. If that is done then Prepaid Rent account must be debited with \$30,000 and \$3,000 of it be charged off as rental each year, in addition to the cash payment of \$3,500 per month. Then the total annual rental is \$42,000 plus \$3,000 or \$45,000. If we deduct the profit of \$500 as above provided the annual amount is reduced to \$44,500. Is this correct? Would not this advance of \$25,000 earn, if invested in securities or if permitted to remain in the business,

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at least \$1,000 the first year? In that event our first yearly rent would be \$42,000 plus \$2,500, or \$45,500, but in future years it would be gradually reduced because of a diminishing deposit.

The matter would, of course, average itself out in the end, but it would seem more convenient and just as satisfactory to pro rate the \$5,000 equally over the ten years. No matter how we handle this amount, the portion of it charged as rent is also credited as income; consequently, even its omission entirely would not be incorrect.

### **First Plan:**

#### *Proposed Book Entries*

##### **(1) Entry when lease is made and deposit paid:**

Prepaid rent .....	\$25,000.00
To cash .....	\$25,000.00

To apply upon lease of store for period of ten years, per agreement. An additional monthly rental of \$3,500 is to be paid in cash each and every month for the entire period.

##### **(2) Entry for monthly rental payments, based on six-month periods:**

Rent of store .....	21,000.00
To cash .....	21,000.00

Rental payments for six months. Cash payments of \$3,500 each.

##### **(3) Rent of store .....**

To prepaid rent .....	1,250.00
	1,250.00

Amortized rental for six months of original cash deposit of \$25,000. To be spread over the entire ten years.

##### **(4) Rent of store .....**

To income account .....	250.00
	250.00

To amortize estimated interest allowed on advance rental payment, one-twentieth of \$5,000 for first six months.

The foregoing entries will take care of the matter in a way that would be satisfactory to most business men but it is obvious that the plan is not ideal. Many would no doubt omit the fourth entry entirely, and even if they did so, the results would not be changed very materially. On that basis the half yearly rental would be \$22,500, but that is not exact since the company has been deprived of the use of \$25,000 which would earn at least 4 per cent if invested elsewhere. Let us deduct \$1,250 from rent prepaid for the first half year's appropriation to rent account, which leaves \$23,750 as a deposit. This amount would accumulate at least \$475 if invested, therefore the company is paying \$225 more during this period than has been entered up. Each succeeding six months, however, it will be reduced \$25 until the \$250 shown above will be more than the interest on the prepayment. In the end it rights itself however.

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Second plan. The following entries are based on the plan just referred to, that of determining interest each half-yearly period. Both Rent and Income accounts will in turn be closed into Profit and Loss account at end of year:

(1) Prepaid rent .....	\$25,000.00	
To cash .....		\$25,000.00
(Same explanation as above.)		
(2) Rent of store .....	21,000.00	
To cash .....		\$21,000.00
(Same explanation as above.)		
(3) Rent of store .....	1,250.00	
To prepaid rent .....		1,250.00
(Same explanation as above.)		
(4) Rent of store .....	475.00	
To income .....		475.00

Interest at 4 per cent on \$23,750 for six months is the balance of rental deposit of \$25,000 after deducting rental appropriation for first six months.

The entries should be the same as above each six months, but the amount of interest reduced \$25 each succeeding period.

Schedule of Rental Payments:\*

Amortized interest on prepaid rent showing charges by 6-month periods, and interest at 4 per cent after each six month's rental has been deducted.

Half-Year	Pro rata Plan		On 4% Interest Plan		Yearly Rent on 4% Plan
	Interest	Total Rent	Interest	Total Rent	
1	\$250	\$22,500	\$475	\$22,725	
2	250	22,500	450	22,700	\$45,425
3	250	22,500	425	22,675	
4	250	22,500	400	22,650	45,325
5	250	22,500	375	22,625	
6	250	22,500	350	22,600	45,225
7	250	22,500	325	22,575	
8	250	22,500	300	22,550	45,125
9	250	22,500	275	22,525	
10	250	22,500	250	22,500	45,025
11	250	22,500	225	22,475	
12	250	22,500	200	22,450	44,925
13	250	22,500	175	22,425	
14	250	22,500	150	22,400	44,825
15	250	22,500	125	22,375	
16	250	22,500	100	22,350	44,725
17	250	22,500	75	22,325	
18	250	22,500	50	22,300	44,625
19	250	22,500	25	22,275	
20	250	22,500	00	22,250	44,525

\* It will be seen by the table that the annual rental for the first year on the 4% plan is \$425 above the average contracted for, \$45,000, and for the final year \$475 below the average. Under the prorata plan an equal yearly distribution is made, which is good enough for ordinary purposes.

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QUESTION 17

The Scranton Land Company is incorporated and purchases fifty acres of land, which it subdivides into blocks and lots. It then negotiates the sale of first mortgage bonds secured upon the whole property in an amount equal to one-third of the purchase price of the property. From the proceeds of the bonds sold, the company proposes to make streets, sewers, sidewalks and carry out other necessary improvements before placing the lots upon the market for sale.

Sales of lots are to be made upon contracts calling for a payment, as at date of execution, amounting to 10% of the sale price of each lot sold, the balance to be paid in monthly installments of 10%, each title to pass to the purchaser as soon as he has paid one-half.

Outline a system of accounts to show the original investment, bonded indebtedness and the application of the proceeds of the bonds, the contracts for sale of lots, and the liquidation of these contracts, having particular reference to the ascertainment and distribution of profits.

ANSWER TO QUESTION 17

The practice of land development companies is to purchase suburban tracts of land for development into resident communities, and many a city whose suburbs are the pride and boast of its citizens is indebted to these companies for its extension and development. For instance, Philadelphia is known as the City of Homes because of the large number of home owners, largely due to the popularity of Building and Loan Associations and to the advantageous terms on which homes can be purchased from real estate men and operative builders.

In such cases a tract of land in some desirable suburban section is purchased and is given an attractive name, as Overbrook Farms, City Heights, Riverside Drive, Lynwood, etc. The property is surveyed and divided into streets and lots. The city plans and regulations must, of course, be followed in laying out streets, planning lots, making excavations, laying mains and pipes, placing curbs and gutters, grading and paving streets. The ground is usually graded, platted and subdivided in such a way as to attract purchasers and to make the locality in every way desirable. All of the development expenses and improvement costs add, of course, to the value of the property, and, therefore, are considered capital outlay or part of the investment. It is a common practice to add all loading expenses even after the lots are completed and until they are disposed of, but this practice can be carried to excess, especially in the case of undesirable properties.

The foregoing comments are applicable to the question, as will be seen. The matter of financing is always of great importance to realty companies, and it is not uncommon to find development schemes of this kind mortgaged up to the limit and even beyond. Advances are usually made by the mortgagee as the development or the erection of buildings progresses. In the case under consideration the company evidently had

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sufficient ready money to purchase the land, but none for development purposes. To meet this condition a bond issue was resorted to, but whether or not the bonds will prove attractive to investors is another matter. We will assume that the bonds have been sold at a discount; at any rate heavy advertising and selling expenses will have been a prominent feature in disposing of them, and such expenses are frequently added to the cost of the property. It is obvious that all improvements should be made before offering the lots for sale, in order that the property may be at its best and prove attractive to purchasers.

Sales of lots on the deferred payment plan are sometimes more profitable to the company than on the cash plan, especially if the instalments are carried to maturity, but there is always the probability of lapses in the monthly payments. This is usually provided for in the contract of sale, and sometimes purchasers are charged interest on instalments when allowed to lapse for a short time. On default of payments the lots usually revert to the company and can be sold to other purchasers. If several instalments have already been paid, it is apparent that the default provides extra profit for the company. In some cases the profit on sales is so large that if only half price were paid in, a gain would be realized. In such a case the company could safely give title upon receipt of half the instalments and take chances on the remainder being met. An agreement is usually entered into respecting the remaining payments before title is passed, or the conditions may all be provided in the original contract. Absolute title may be given after one-half of the payments are made, and a purchase money mortgage be executed by the purchaser to the company for the remainder. If the mortgage is not given, then some other evidence of debt is executed, unless the matter is fully provided for in the sale contract. Before the company can give a clear title to lots it must itself secure a release of such lots from the holder of the first mortgage bonds. This is usually provided for in the trust deed, and as releases are given definite payments to the mortgagee are required.

**System of Accounts:**

The accounting system must provide for the purchase price and development of the land, including the various expenses of laborers, skilled workmen, contractors, etc. It must also provide for the issue and recording of bonds and mortgages, the cost price and sale of lots, and the recording of accounts with purchasers. A separate ledger should be kept for purchasers' accounts. The collection and recording of monthly instalments will be one of the chief features. Private plans or cards should be kept showing the number, details and cost of each lot, and the sale price adopted. The distribution of profits is not an easy matter to decide. For example, the gross cost of a lot may be \$120, while it sells on the instalment plan for \$300, payable in thirty monthly instalments. This would give a profit of \$180. Assuming that the sale was made in March and that ten instalments have been paid since, what profit

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should be taken for the year? Shall it be \$180, or one-third of that amount, \$60? In other words, should all the profits be taken in the first year, or should they be distributed over the currency of the contract period? The annual federal corporation tax will be affected by the decision made, and the government has ruled that the deferred profit-taking plan is permissible.

SCRANTON LAND COMPANY

JOURNAL ENTRIES SHOWING SYSTEM OF ACCOUNTS

(1) Cash .....	\$50,000.00	
To capital stock .....		\$50,000.00
For incorporation of the Scranton Land Company with a capital of \$50,000, by the following incorporators:		
(2) Incorporating expenses .....	500.00	
To cash .....		500.00
The various expenses connected with the organization of the company.		
(3) Real estate .....	45,000.00	
To cash .....		45,000.00
For the purchase of fifty acres of land near Philadelphia from John Vendor, to be subdivided into blocks and lots. Title to the land is passed and recorded.		
(4) Cash .....	14,000.00	
Expense of bond issue .....	1,000.00	
To first mortgage bonds .....		15,000.00
For issue and sale of 6% mortgage bonds secured by a first mortgage on the entire property to the Girard Trust Company. Entire issue, \$15,000, being one-third the purchase price of property. Bond discount and expenses amount to \$1,000.		
(5) Development account .....	20,000.00	
To cash .....		14,000.00
Accounts payable .....		6,000.00
Cost of developing property by workmen and contractors, the amount unpaid being due to contractors for grading, planning, surveying and blocking streets, sewers, sidewalks, curbing, etc.		
(6) Sales contract (or customers) .....	120,000.00	
To sales of lots .....		120,000.00
For sales of the entire 300 lots at an average price of \$400 each, to purchasers as per contract books and records. Terms 10% down and 10% each month until paid, title to pass as soon as one-half of contract price is paid in.		

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(7) Cash .....	12,000.00	
To sales contracts .....		12,000.00
First payment of 10% on sales of lots.		
(8) Cash .....	48,000.00	
To sales contracts .....		48,000.00
The amount of instalments paid in during the first year, being an average of four months.		
(9) Accounts payable .....	6,000.00	
To cash .....		6,000.00
For payment of amounts due contractors.		

Records must, of course, be kept separately for the various charges, contracts, etc. A separate ledger may be used for the divisions of development expenses, or they may be contained in the general ledger. The division may be as follows: grading and surveying, street grading and paving, sidewalks and curbs, sewage and mains, trees and sodding, etc. These expenses should, of course, be prorated to the various lots in equal proportion, though apportioning a larger amount to corner lots. When considering costs it is customary to include all of the loading expenses to date, as interest on investment, taxes, maps and plans, etc., etc., in order to obtain the full and true cost of the property. Maps and charts should be provided, showing the location, dimensions and boundaries of the different lots, and each lot should be given a number.

At end of second year, all sales having been made in the second year of ownership, and all yearly expenses included, the accounts may appear as follows:

**TRIAL BALANCE, DECEMBER 31, 1913 (END OF 2ND YEAR)**

Capital stock .....	\$ 50,000.00
First mortgage bonds .....	15,000.00
Real estate .....	\$ 45,000.00
Development account .....	20,000.00
Incorporating expenses .....	500.00
Expenses of bond issue .....	1,000.00
Sale contracts .....	120,000.00     60,000.00
Cash .....	50,200.00
Accounts payable .....	
Sales of lots .....	120,000.00
Bond interest .....	1,800.00
Agents' commissions .....	4,000.00
Maintenance expenses .....	1,000.00
Advertising, etc. ....	1,500.00
	<hr/>
	\$245,000.00
	\$245,000.00
	<hr/>

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REAL ESTATE AND DEVELOPMENT ACCOUNT (END OF 2ND YEAR)

Cost of land .....	\$ 45,000.00	Contract sales .....	\$120,000.00
Development costs .....	20,000.00		
Incorporating expenses..	500.00		
Expense of bond issue..	1,000.00		
Bond interest .....	1,800.00		
Maintenance .....	1,000.00		
 Total cost .....	<u>\$ 69,300.00</u>		
Gross profit .....	<u>50,700.00</u>		
	<u><u>\$120,000.00</u></u>		<u><u>\$120,000.00</u></u>
 Agents' expenses .....	<u>\$ 4,000.00</u>	Gross profit .....	<u>\$ 50,700.00</u>
Advertising, etc. ....	<u>1,500.00</u>		
Net profit, \$45,200:			
Taken this year .....	<u>22,600.00</u>		
Deferred to next year.	<u>22,600.00</u>		
	<u><u>\$50,700.00</u></u>		<u><u>\$50,700.00</u></u>

It will be seen that the completed lots cost \$231 each, and of course this cost is used in deciding upon the selling price thereof. On the above division of profits the federal corporation tax will be 1% of \$17,600, or \$176. If all profits are taken this year, which is usually the case, the tax would be \$402. It is apparent, however, that if the profits are all considered during the first year there will be none left for the second. In that case a surplus should be maintained to meet the second year's expenses. If only part of the lots were sold, then the cost price thereof should be credited to Real Estate and charged against the sales. The balance of cost would remain in the Real Estate account, since it is the plan to close all development charges to the Read Estate account.

When titles are given, one-half having been paid.\*

(10) Accounts receivable .....	\$60,000.00	
To sales contracts .....		\$120,000.00
Upon issue of titles to purchasers of lots and transfer of accounts to personal list.		
Upon payment of bonds:		
(11) First mortgage bonds .....	\$15,000.00	
To cash .....		15,000.00
For payment of bonds in order to provide clear title to the lots.		

\* The accounts might even remain untouched when titles are passed, or be transferred to a different ledger. If mortgages are received, then debit Mortgages Receivable, and likewise if some other security is passed.

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QUESTION 18

Prepare a sample statement of an administrator's final account for presentation in a probate court.

ANSWER TO QUESTION 18

The "final" account of an administrator is the statement rendered by him to the Probate Court upon the completion of his official duties as administrator of an estate. In the meantime he may or may not have rendered one or more intermediate accounts of matters pertaining to the estate. The illustration given below is both the "first" and "final," which is similar in every way to the account submitted by an executor. In Pennsylvania the court having jurisdiction over such matters is known as Orphan's Court, and in New York as the Surrogate Court. The executor is a person or persons named by the testator in his last will and testament to settle all matters pertaining to his estate as directed by the will. In case no will has been executed then an administrator is appointed by the court to settle up the decedent's affairs. In case a will is made without naming an executor, or in case the one named declines to act, the court then appoints an "administrator with will annexed." "With will annexed" is usually indicated by the letters "C. T. A."—*cum testamento annexo*. It will be noticed that the form of account required in Pennsylvania is of the simplest kind, showing debits and credits respecting principal and the same as to income. In some states the main account consists of a summary of separate schedules. Real estate must be recorded separately, as shown in the accompanying account. Every item in the administrator's account should bear date of entry, though dates have been omitted in the accounts illustrated herewith.

**FINAL ACCOUNT OF ADMINISTRATION IN THE ORPHAN'S COURT FOR THE CITY AND COUNTY OF PHILADELPHIA**

**FIRST AND FINAL ACCOUNT OF RICHARD ROE, ADMINISTRATOR C. T. A. OF JOHN DOE, DECEASED—DECEMBER 18, 1912**

*Principal—Dr.*

The accountant charges himself with the amount of inventory and appraisement as follows:

1,000 shares of U. G. I. at 90 .....	\$ 90,000.00
10,000 Philadelphia City 4's at par .....	10,000.00
500 shares of P. R. T. at 27 .....	13,500.00
Note receivable (not due) .....	5,000.00
Cash found on person of deceased .....	\$ 88.00
Cash deposited in Girard Trust Co. ....	<u>25,312.00</u>
	25,400.00
2 horses and 1 carriage .....	1,200.00
Furniture, books, etc. ....	<u>2,200.00</u>
Total appraisement .....	\$147,300.00

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The accountant also charges himself with the following amounts received in addition to the above:

Gain on sale of horses sold for .....	\$1,200.00
Valued in inventory .....	<u>\$1,100.00</u>
	<u>\$ 100.00</u>
Gain on sale of U. G. I. stock sold for .....	\$91,000.00
Valued in inventory .....	<u>90,000.00</u>
	<u>1,000.00</u>
	<u>1,100.00</u>
	<u>\$148,400.00</u>

*Principal—Cr.*

The accountant claims credit as follows:

Register of wills for granting letters .....	\$ 25.50
Bond of administrator .....	50.00
Advertising letters, etc. ....	15.00
Funeral expenses paid .....	925.00
Debts of deceased (specified) .....	14,075.00
Judgments against estate .....	8,000.00
John Smith, Esq., professional services .....	250.00
Register of wills for filing account:	
Adjudication of court .....	48.50
Commission to accountant, 3% .....	4,452.00
Loss on sale of books and furniture:	
Inventoried .....	\$2,200.00
Sold for .....	<u>2,000.00</u>
	<u>200.00</u>
Total .....	\$ 28,041.00
Balance of principal for distribution .....	<u>120,359.00</u>
	<u>\$148,400.00</u>

*Administrator's Account of Income:*

*Income—Dr.*

The accountant charges himself with income received as follows:

Dividends U. G. I. stock .....	\$1,000
(Dates)	
1,000	
1,000	
\$1,000	\$4,000.00
Interest on City 4's .....	200.00
Interest on deposits .....	<u>200.00</u>
	<u>\$ 4,400.00</u>

*Income—Cr.*

The accountant claims credit as follows:

Commission to accountant, 3% .....	\$ 132.00
Balance of income for distribution .....	<u>4,268.00</u>

*Recapitulation*

Balance of principal .....	\$120,359.00
Balance of income .....	<u>4,268.00</u>
	<u>\$124,627.00</u>

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Payments on account to widow of deceased .....	\$ 6,000.00
Payments on account to son of deceased .....	3,500.00
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Balance .....	\$ 115,127.00
Consisting as follows:	
Cash on hand .....	\$ 91,627.00
10,000 Philadelphia City's 4's .....	10,000.00
500 shares P. R. T. .....	13,500.00
<hr/>	
	115,127.00

*Account of Real Estate Transactions:*

*Realty Account—Debit*

The accountant charges himself with the purchase money  
of 725 North Second Street sold for .....\$ 11,000.00

*Realty Account—Credit*

Accountant asks allowance for the following:

Commission to John Smith, 1%	\$ 111.00
Commission to accountant, 3%	330.00
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Balance .....	10,560.00      11,000.00

(Acknowledged before register of wills or notary)

RICHARD ROE,  
Administrator.

QUESTION 19

What is meant by hidden reserves?

What is meant by hidden assets?

Describe some of these, and write your opinions as to the advisability of having them.

*ANSWER TO QUESTION 19*

The terms "hidden reserves" and "hidden assets" are practically synonymous with "secret reserves." The latter term is familiar to accountants as representing the excess of actual net worth of a concern over and above the amount indicated on its balance sheet. For some reason or other the directors may not wish to disclose in a financial statement the true status of the company's condition, and they act accordingly in understating the true facts. This may be due to a spirit of conservatism which is no doubt permissible in case no one is injured thereby. Sometimes, however, the actual profits for a given year are understated for the purpose of lessening the state and federal corporation tax, and perhaps to keep both stockholders and competitors in ignorance of the company's actual earnings. This is obviously insufficient reason for the creation of such a reserve, and from that viewpoint alone should be condemned.

A distinction might be drawn between hidden reserves and hidden assets simply for the purpose of making a division. An asset may be fully valued, or even overstated in the accounts, but it is so buried or interwoven in some other asset or account that it cannot be distinguished

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as a separate item. The hidden reserve presupposes the omission or reduction in value of an asset.

Secret reserves are, as a rule, created by a charge against revenue, with a corresponding reduction of the assets or inflation of the liabilities. The probability of extraordinary losses is always apparent and if provision for such contingencies can be provided for in advance it is wise to do so, yet the question whether or not the ultra-conservative plan of "writing down" too severely is not misleading, is always uppermost in one's mind. The ideal plan would create a substantial surplus to meet unexpected loans, but the customary craving for dividends renders the continuance of such surplus unstable. Especially is this true if the directors are easily persuaded to distribute the profits to insistent stockholders.

**How Secret Reserves are Created:**

Following are various acts or omissions which result in the creation of secret reserves:

- (1) Omitting assets which should be included, intentionally or inadvertently.
- (2) Undervaluing assets, intentionally or otherwise.
- (3) Writing off too much depreciation.
- (4) Charging additions and improvements to repairs or maintenance account instead of to plant account.
- (5) Creating reserves for bad debts in excess of the amount required.
- (6) Charging production costs to general expense instead of to the manufactured article, thus undervaluing the cost thereof. This may be done unintentionally or otherwise.
- (7) Including fictitious liabilities in the accounts, or overstating liabilities which are known to be lower.
- (8) Making additions or improvements and charging the cost to surplus account, thereby hiding the value thereof.
- (9) Neglecting to take into consideration in the accounts natural increases in value of property because of surroundings and improved conditions of locality.
- (10) Understating values in good years and increasing them in lean years as a means of keeping the dividends uniform from year to year.

The hidden reserve is undoubtedly a commendable creation in case it is not carried to excess and provided it is not detrimental to interested persons. The spirit of conservatism is to be commended by the accountant rather than criticized, and if not abused the policy of the writer is to look upon it with favor. Directors are so fond of inflating values that the opposite tendency is refreshing to the auditor. When engaged by the corporation the auditor may not have any say in the matter as it is a policy to be decided by the directors. Yet, if the stockholders are kept in ignorance of a secret reserve, the auditor should draw attention to the fact in his report, providing it is of sufficient proportions to merit special attention.

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QUESTION 20

Write a report of at least one hundred words each of an audit—

- (a) When the books are correct.
- (b) When the books are incorrect.

ANSWER TO QUESTION 20

It is customary for the auditor, after completing an examination of the books and records, to render statements setting forth the results of the business for the period under review and the condition of the company at the end thereof. These statements may be more or less elaborate, depending upon the size of the company, the amount of business done, and the divisions into which they require the information separated. It is not uncommon for additional information of a statistical nature to be required, as comparative statements for two or more years, etc. The auditor usually writes a report to accompany the various exhibits and statements, but its contents depend upon conditions. It should not be very lengthy unless there are special considerations to be brought to the attention of the directors. Sometimes a few lines are sufficient, while at others a page or two may be necessary. The reports given below are suggestive and brief. The first contains about one hundred and eighty words, while the second is somewhat longer:

- (a) Report of auditor when the books are correct.

Philadelphia, January 15, 1913.

Mr. James W. Fernley,  
President, Auto Manufacturing Company,  
Philadelphia, Pa.

Dear Sir:

In accordance with your request, I have audited the accounts of your company for the fiscal year ended December 31, 1912. The results of my findings are set forth in the following:

*Exhibit A.* Statement of the assets and liabilities and the net worth of the company as on December 31, 1912.

*Exhibit B.* Statement of operations showing the manufactured output of your factory and the cost thereof for the year ended December 31, 1912.

*Exhibit C.* Profit and Loss account showing the sales and other earnings, also the general and selling expenses for the year ended December 31, 1912.

*Exhibit D.* Comparative statement, showing the earnings, operating, selling and administrating expenses for the years 1912 and 1911.

As far as I can determine, the income of the business has all been correctly accounted for and entered upon the books. All expenditures for the period are likewise correctly entered as summarized in the accompanying statements and exhibits.

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The results set forth herewith are in accordance with the books of the company, and in my judgment they exhibit the true condition of the company's affairs.

Respectfully submitted,

R. J. BENNETT,\*  
Certified Public Accountant.

(b) Report of auditor when books are incorrect:

Mr. George M. Longworth,  
President, The Eastern Manufacturing Company,  
Pittsburgh, Pa.

Dear Sir:

I have completed the audit of your books and accounts for the fiscal year ended October 31, 1912, and present herewith correct statements thereof.

My examination has covered the regular books of account, also the books and records relating to the manufacturing costs. A few adjustments of errors were necessary, as set forth below.

So far as I can determine, all sales for the period have been correctly entered on the books and are accounted for by cash receipts, discounts, allowances, and accounts receivable. I have verified a large portion of the latter by correspondence with the customers.

The books were not properly adjusted before closing, with respect to the following: †

1. Several invoices for materials amounting to \$3,186.00, were entered in the accounts, but the goods in transit were not included in the inventory.
2. Invoices amounting to \$1,437.00 were not entered within the period, though the materials were received and included in the inventory.
3. Credit was not taken for unexpired insurance premiums amounting to \$432.00.
4. Taxes paid in advance to the amount of \$887.00 should likewise have been adjusted before closing.
5. Wages accrued and unpaid amounting to \$2,327.00 were not taken into account.
6. A proper allowance for depreciation of machinery should have been made; 8%, or \$3,200.00, has been carried to reserve for this purpose.
7. The expenses of three of your traveling salesmen had not been entered for the month of October. These amount to \$453.00.
8. Repairs and maintenance charges amounting to \$5,824.68 were entered up as improvements.

\* Instead of signing his name the candidate should use the number or letter given to him by the examiners.

† The errors included here in report might have been set forth in a separate statement and then have been briefly referred to in the report.

### *C. P. A. Legislation*

All of the above errors have been adjusted and the books are now in agreement with my statements presented herewith, which include Manufacturing and Profit and Loss Statements for the year, also Statement of Assets and Liabilities as at October 31, 1912. In my judgment the results contained therein are correct.

Very respectfully yours,

DAVID HENDERSON,  
Accountant and Auditor.

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### **C. P. A. Legislation**

#### **TENNESSEE \***

The following act creating the degree of C.P.A. in Tennessee has been recently adopted:

An Act to establish a State Board of Accountancy and prescribe its duties and powers; to provide for the granting and the revoking of certificates to Accountants who qualify under the provisions of this Act, and to provide a penalty for violation of this Act.

SECTION 1. *Be it enacted by the General Assembly of the State of Tennessee*, That there is hereby established a State Board of Accountancy, to consist of Five members, to be appointed by the Governor within thirty days after the passage of this Act, all the members of which shall be practising Public Accountants in this State who have been actively engaged in such practice on their own account or as senior accountants in the offices of reputable Public Accountants for at least three years next preceding such appointment; two of whom shall be selected from the State-at-large and shall hold office for the terms of three years each; and one each of the other three of whom shall be selected respectively from each of the three Grand Divisions of the State commonly known as West, Middle and East Tennessee, to hold office respectively for the terms of one, two and three years, as designated by the Governor in his appointments; and upon the expiration of each of said terms the successor to each member shall be appointed in the same manner for the term of three years, but after January first, nineteen hundred and fourteen, all Accountants to serve on this Board must be holders of C. P. A. certificates under the provisions of this Act. Any vacancies that may occur from any cause shall be filled by appointment to be made by the Governor for the unexpired term.

SEC 2. *Be it further enacted*, That any citizen of the United States (or person who has duly declared his intention of becoming such citizen), being over the age of twenty-one years and of good moral character, residing or having an office in the State of Tennessee, who shall, as

\* See letter of F. W. Pike under heading of Correspondence, explaining and commenting upon the Tennessee act.

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hereinafter provided, receive from the Tennessee State Board of Accountancy a certificate of his qualifications to practise as an expert public accountant, shall be known and styled as a Certified Public Accountant; but no other person, nor any corporation, nor any partnership, all the members of which have not received such certificate, shall assume such title, or the title of "Certified Accountant," or "Chartered Accountant," or the abbreviations "C.P.A." or "C.A." or any other words, letters or abbreviations tending to indicate that the person, firm or corporation so using the same is a certified public accountant.

*Sec. 3. Be it further enacted,* That examinations of persons applying for certificates under this Act shall be held in Nashville at least once a year or oftener, at the discretion of the Board. The subjects in which applicants shall be examined are: (1) theory of accounts; (2) practical accounting; (3) auditing, and (4) commercial law, as affecting accountancy.

No person shall be permitted to take such examination unless he shall have been practising continuously on his own account as a Public Accountant for at least one year; or shall have been continuously employed in the office of a Public Accountant as an assistant for at least two years; or shall have been continuously employed as a chief or head bookkeeper for at least three years; or shall present an academic diploma or other equally satisfactory evidence, in such manner as required by the Board, proving that he has successfully completed a course of studies and instruction in any State or country which is equivalent to the requirements for graduating from the highest grade of High Schools in this State.

All examinations herein provided for shall be conducted by the State Board of Accountancy, or by a majority thereof. The time and place for holding examinations shall be duly advertised for not less than three consecutive days in at least one daily newspaper published in each of the four most populous cities of the State not less than thirty days prior to the date of each examination.

The Board may make all needful rules and regulations regarding the scope of the examinations, the method and time of filing applications for examination and all other rules and regulations necessary to carry into effect the purposes of this Act.

*Sec. 4. Be it further enacted,* That the Board may, in its discretion, waive the examination of any person possessing the qualifications stated in Section 2 of this Act who (1) is the holder of a C. P. A. certificate issued under the laws of another State which extends similar privileges to certified public accountants of this State; provided, the requirements for said certificate in the said State are, in the opinion of the Board, equivalent to the requirements in this State; (2) is the holder of a certificate of Certified Public Accountant, or Chartered Accountant, or the equivalent thereof, issued under the laws of any foreign government; provided, the requirements for said certificates are, in the opinion of the Board, equivalent to the requirements of this State; (3) has, for at least three years next preceding the date of his application, been practicing as a public accountant, the last three months of which have been in this

### *C. P. A. Legislation*

State, and who shall apply in writing to the Board for such certificate within three months after the appointment of said Board by the Governor.

SEC. 5. *Be it further enacted*, That the Board may revoke any certificate issued under this Act if the holder thereof (1) shall be convicted of a felony, or (2) shall be declared by any court of competent jurisdiction to have committed any fraud, or (3) shall be declared by any court or commission to be insane or otherwise incompetent, or (4) shall be held by this Board to be guilty of any act or default discreditable to the profession, or (5) in case the certificate shall have been issued to the holder thereof on account of his holding a C. P. A. or C. A. certificate from another State or country which has, after the issue of this certificate from this Board, in any way depreciated the standard or equivalent of its privileges or requirements in accordance with the provisions of this Act; provided, that written notice of the cause of such contemplated action and the date of the hearing thereon by this Board shall have been mailed to the holder of such certificate at his last known address at least twenty-five days prior to such hearing. At all such hearings the Attorney-General of this State, or one of his assistants designated by him, may sit with the Board as legal counsellor and advisor of the Board and to prepare for any legal action that may be determined upon by the members of the Board.

SEC. 6. *Be it further enacted*, That a uniform fee of twenty-five (\$25.00) dollars shall be charged by the Board for each examination or certificate, or both, same to be paid in advance and to accompany application.

In case of the failure on the part of any applicant to attend the examination at the date specified by said Board, or to pass a satisfactory examination, said applicant may appear at the next examination of said Board for re-examination upon the payment of the further sum of ten (\$10.00) dollars.

From the fees collected under this Act the Board shall pay all expenses incident to the examinations, the expenses of issuing certificates, the traveling expenses of members of the Board and their compensation and their maintenance expenses when performing their duties under this Act; PROVIDED THAT NO EXPENSE INCURRED UNDER THIS ACT SHALL BE A CHARGE AGAINST THE FUNDS OF THIS STATE. Any surplus of receipts over expenses in excess of the sum of Five Hundred (\$500.00) dollars shall, at the end of each calendar year, be deposited by the Treasurer of the Board with the State Treasurer to the credit of the State School Fund. The members of this Board shall be paid an amount not exceeding fifteen (\$15.00) dollars per day to each member for the time actually spent, and also all necessary traveling and maintenance expenses incurred in the performance of his duties under this Act.

The Board shall report annually to the Governor the number of certificates issued and the amount of receipts and disbursements under this Act.

SEC. 7. *Be it further enacted*, That if any person, or corporation,

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represents himself, or itself, to the public as having received the certificate provided for in this Act, or if he shall advertise himself as a Certified Public Accountant, or Certified Accountant, or Chartered Accountant, or use the initials C. P. A. or C. A., or otherwise falsely hold himself out as having qualified under this Act, while practising in this State, without having actually received a certificate from the State Board of Accountancy, or if, having received such certificate, he shall continue to practise as a Certified Public Accountant after said certificate has been revoked, or if any person shall otherwise violate any of the provisions of this Act, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than one hundred (\$100.00) dollars, nor more than five hundred (\$500.00) dollars, or imprisonment for not less than one month nor more than six months, or both, in the discretion of the court.

Sec. 8. *Be it further enacted*, That if any person practising in the State of Tennessee as a Certified Public Accountant, under this Act, or who is in the practice of public accountancy as a Certified Public Accountant, or otherwise, shall wilfully falsify any report or statement bearing on any examination, investigation or audit made by him, or under his direction, he shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine of not less than one hundred (\$100.00) dollars nor more than one thousand (\$1,000.00) dollars, or shall be imprisoned for a term of not less than three months nor more than one year, or both such fine and imprisonment, for each time and for each item in which he may so falsify such reports.

Sec. 9. *Be it further enacted*, That nothing herein contained shall be construed so as to prevent any person from being employed as a public accountant within this State.

Sec. 10. *Be it further enacted*, That all acts or parts of acts in conflict with the provisions of this Act are hereby repealed.

Sec. 11. *Be it further enacted*, That this Act shall take effect from and after its passage, the public welfare requiring it.

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### **The Georgia Society of Certified Public Accountants**

At the regular annual meeting of the Georgia Society of Certified Public Accountants, held in Atlanta, February 22, 1913, the resignation of A. J. Haltiwanger as president was presented, and accepted with regret. The following officers were elected: President, Joel Hunter, Atlanta; vice-president, Alonzo Richardson, Atlanta; secretary-treasurer, Charles Neville, Savannah. James Furse, C.P.A., Savannah, was elected a member of the society.

A general discussion took place on matters affecting the profession of accountancy in the southeastern states, and the members pledged themselves to an educational campaign for the purpose of emphasizing the value of audit work by competent accountants.

## Certification of Borrowers' Statements

The following letter was recently sent to thirty-five hundred bank presidents by the Special Committee on Credit Information of the American Association of Public Accountants:

The American Association of Public Accountants invites your personal consideration of the question of the certification of borrowers' statements by public accountants. With the idea of eliciting the opinion of the leading bankers of the country upon the subject this association is addressing a large number of bank presidents, and earnestly requests that the questions enclosed herewith may be answered.

It will be within your recollection that the Committee on Credit Information of the American Bankers' Association in its report of 1908 strongly endorsed the idea of requiring independent certification of borrowers' statements and statements presented by note brokers. The substance of the report is summed up in the following extract:

"They (the committee) respectfully urge that every member exert his influence to have all paper purchased from note brokers presented with the accompanying statements audited by certified public accountants and note brokers' certificates of paper outstanding at the time of purchase \* \* \* We would ask that the association by the adoption of this report recommend that its members in purchasing commercial paper from note brokers give preference to such names as furnish accompanying statements audited by certified public accountants and certificates signed by the note brokers of the amount of paper outstanding at the time of purchase."

In an address delivered before the New Jersey State Bankers' Association in 1905, James G. Cannon made the following statement in regard to the question of compulsory certification:

"The trend of every science is toward exactness. The advance to this point justifies a further step in advance \* \* \* How shall this next step be taken? By establishing the custom of requiring statements of financial condition to bear joint certificates of a certified public accountant and of an engineer.

"The certified public accountant has come into prominence within the past ten years and his profession has the guarantee of law in most States of the Union. He concerns himself with the books of account, and records and statements prepared by him have the support of such books, and the banker has the sense of security due to the disinterested and impartial nature of the accountant's position. He may be called the referee in accountancy and the expert on cash valuations.

"In brief, our next step is in the direction of accuracy. This is to be accomplished by having statements subjected to searching analysis certified by certified public accountants and engineers, and then credit

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will be extended strictly on the merit of the individual applying for loans."

David R. Forgan, president of the National City Bank, Chicago, speaking before the American Association of Public Accountants, in September, 1912, dealt with the relations between bankers and accountants. He said in part:

"In self protection against \* \* \* deception, bankers have, within recent years, begun to demand, or at least encourage the practice of having statements for credit certified by public accountants. Only keen competition prevents this practice from becoming universal as it ought to be."

It is recognized that, as pointed out by Mr. Forgan, competition is preventing a strict adherence to the recommendations of the American Bankers' Association that borrowers' statements should be certified by certified public accountants, but it is the desire of the American Association of Public Accountants to ascertain to what extent the practice of requiring independent certification is increasing or decreasing. Accordingly you are requested to answer the questions enclosed herewith and address your reply to A. P. Richardson, Secretary, 55 Liberty Street, New York.

Yours very truly,

A. P. RICHARDSON,  
Secretary.

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THE AMERICAN ASSOCIATION OF PUBLIC ACCOUNTANTS

SPECIAL COMMITTEE ON CREDIT INFORMATION

*Inquiry Blank*

What is the attitude of your bank in regard to requiring that statements submitted by borrowers or note brokers shall be certified by public accountants?

Where this is required how is it regarded by the borrowers of your bank?

To what extent do you find that borrowers voluntarily submit certified statements?

Other things being equal, do certified statements have a favorable effect upon the terms and interest rates granted by your bank to borrowers?

Do you notice an increase or decrease in the proportion of borrowers' statements certified by public accountants?

On the basis of the foregoing questions will you be kind enough to give us the benefit of your personal opinion on the general question of certification of borrowers' statements?

(Signed) .....

President.

## Correspondence

### The Tennessee C. P. A.

*Editor, Journal of Accountancy:*

Sir: I take pleasure in handing you herewith a copy of the C. P. A. bill which has just passed both branches of the legislature of Tennessee, and is awaiting the approval of the governor, which it doubtless will have received by the time this is published.\*

This bill embodies almost the entire text of the Virginia bill, which latter was at first approved by a meeting of the Tennessee Society of Public Accountants in Memphis in December last, with no material change except the insertion of the Missouri penalty clause. A committee was appointed at that meeting to arrange for presenting said bill to the legislature. As similar bills had been introduced in the legislature for the past several successive biennial sessions without success, the fate of this seemed rather dubious, or at least problematical.

The writer had the honor to be consulted by the members of the committee referred to above, and, after a thorough review of the bill as approved by the Tennessee Society, some changes and additions were made which, we believe, have resulted in our having now the best C. P. A. bill on record. Incidentally, however, we are aware that there are several small features in the bill which we would have eliminated if we had felt it could be passed by the legislature without them; and, moreover, we would have inserted a few other features which would have made the bill more stringent, if we had not feared they would have prevented its passage.

By a comparison with the Virginia law it will be seen that the main differences between it and ours are as follows:

SECTION I. Instead of three members on the state board our bill requires five—all public accountants—two from the state at large, and one each from the three geographical grand divisions of the state—all to be appointed by the governor within thirty days after the passage of the act.

Sec. III. Examinations to be held at the state capital only; applicants to have practised or have been employed "continuously" during the period required. Or, applicants must have graduated from the highest grade of high schools in the state or their equivalent. In retaining the book-keeper clause, we improved it by inserting the words "chief or head." In inserting the diploma clause, we intended mainly to provide for the future and to increase the opportunities of capable scholars. After all, it is understood that even if an applicant be qualified according to this section, he must in addition make a thorough study of accounting text books at schools of accounts, or otherwise, before it would be possible to pass an examination.

Sec. IV. We changed the last clause of this section, in order to meet local conditions as to time, and definitely establish the limit of applications.

\* For text of this bill, which has been approved by the governor and is now in force, see "C. P. A. Legislation," page 301.

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Sec. V. In the fifth clause of this section we provide for the revocation of a certificate issued to a holder of a C. P. A. certificate from another state, in case said state afterwards lowers its standard of privileges or requirements.

Sec. VI. Provides for a uniform fee of \$25.00 from all applicants, whether by examination, waiver or other C. P. A. certificate; for the fees and expenses of the state board and for annually depositing all but a surplus of \$500.00 with the state treasurer.

S53. VII. In this section we inserted the words, "while practising in this state," for obvious reasons.

By comparison with the Missouri law it will be seen that in section VIII we adopted the penalty for fraud section practically as in said law, but applied the penalty not only for "each time" but for "each item" of falsification.

After overcoming a little opposition in Memphis against any changes in the Virginia law, which arose chiefly from a laudable desire to avert any interference with the passage of the act by this legislature, Mr. Thos. A. Andrews, vice-president of the Tennessee Society, and the writer were delegated as representatives of West Tennessee to take the bill to Nashville, there to meet the accountants of Middle and East Tennessee, obtain their support, and finally to arrange for the introduction of the bill in the legislature. At a meeting of the representatives of the accountants of the state at Nashville, the bill as passed was adopted section by section, unanimously, on January 14th, and a committee was appointed by the meeting consisting of Mr. Geo. M. Clark, of Chattanooga, Mr. T. A. Andrews of Memphis, and Messrs. M. L. McFarland, Ira P. Jones and A. B. Fisher of Nashville, to present and press the passage of the bill by the legislature. We had the pleasure of a personal interview with the governor and of securing his approval of such a measure in advance, as it was entirely meritorious and non-political—a benefit to all classes of business. The bill was introduced in the senate January 18th, and in the house several days later; was passed by the house February 20th, and by the senate February 21st. If the long dead-lock over election of United States senators and the subsequent election of several state officers had not intervened, doubtless this bill would have become a law some weeks ago, together with others.

As it stands, however, we are thankful to get this old commonwealth into line at last with the rest, and agree that "honor should be given where honor is due." To Mr. Clark, who has recently been appointed state auditor under a new law, and who has given unremitting attention to the matter at Nashville, and to Mr. Andrews who has been his able lieutenant, are chiefly due the credit for final success of this cause; although all the accountants in the state have unanimously contributed in every way to win the battle, will bury past differences, and will press forward harmoniously in future toward the accomplishment of greater victories.

F. W. Pixt.

Memphis, Tenn., Feb. 24, 1913.

## *Correspondence*

### A Question of Depreciation Charge

*Editor, Journal of Accountancy:*

Sir: A manufacturing concern has, besides a general ledger, a private ledger. In the private ledger among capital accounts, etc., are kept property account and profit and loss. In the general ledger is kept an account known as operating account, which shows the profit from work done which is all under contract. Incidentally, it is a structural steel and bridge shop.

In closing out the books at end of the year, should depreciation on machinery be charged to operating account, or should it be charged to private ledger and thence to profit and loss?

Since property accounts, including machinery, are kept in the private ledger, I take the stand that any depreciation (which is a credit to machinery account) should be charged to profit and loss in the private ledger.

Also inventory adjustment, I take it, should be charged to operating account in the general ledger, since the stock accounts are kept in the general ledger, and any adjustment in inventory is a loss or gain on operation.

In the case of machinery depreciation it is different, depreciation having no relation to profit and loss, the same as loss or gain on bonds.

I should be glad of an opinion on this matter through the columns of your valued JOURNAL.

Yours truly,

ALEX. T. GILLES.

Vianville, Montreal, Feb. 10, 1913.

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### Concerning Our Shortcomings

*Editor, Journal of Accountancy:*

Sir: Some years ago I sent my cheque to the publishers for a year's subscription to THE JOURNAL OF ACCOUNTANCY, and requested that the JOURNAL be mailed to my business address. In giving my name I appended thereto the letters "C.P.A." which I am expressly and legally permitted to do by wording of the certificate issued to me by the state of New York, and also by another state under their laws recognizing and standardizing our profession. The mailing department of the JOURNAL, contrary to the declared policy of its editorial department, persistently declined to "recognize the profession" by ignoring the letters "C.P.A." month by month, when addressing the JOURNAL on its addressing machine. A year later I made the self-same request when remitting my subscription cheque, and the JOURNAL's mailing department again persisted for another year in omitting the letter "C.P.A."

I had been actuated in subscribing as much by a desire to give professional support to THE JOURNAL OF ACCOUNTANCY as by any expectation of benefits to be derived from its perusal, and I thereupon allowed my subscription to expire. The JOURNAL then sent me many requests by mail for a renewal, using various arguments as to why I should do so, most

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of them being "for the good of the profession." All of these communications when mailed were addressed to me personally, and none of them professionally.

Since then I have had but little faith in the genuineness of its efforts for a "recognition of the profession."

All this may appear an insignificant matter, but the principles involved are fundamental. Imagine for one moment, for instance, a medical publication addressing known registered practitioners, or its professional subscribers, without using the prefix "Dr." or the affix "M.D."! Such an omission would be considered a professional insult.

Now, can there be any good reason, among members of the accounting profession, why the professional degree of C.P.A. is not as honorable, and as worthy of recognition through the mails, as the professional degree of M.D. is among the members of the medical profession? And if the degree of C.P.A. is to be thus ignored by those who should be foremost in recognizing it, and in such an important source of general public recognition as can be obtained when using the United States mails, is it any wonder that *THE JOURNAL OF ACCOUNTANCY* is perpetually advocating the "recognition of the profession" without obtaining results? Is it surprising that other publications should follow the example set by the official organ of The American Association of Public Accountants, and that a large proportion of the American public should remain ignorant of the meaning of the letters "C.P.A.," and be unaware that accountancy is a profession legally recognized as such in this state for over sixteen years, and now recognized as a profession by the laws of nearly all of the other important commercial states of the Union?

If the matter of interstate recognition of the degree has any bearing on the policy that is evidently being followed by *THE JOURNAL OF ACCOUNTANCY*, surely, and with but very little trouble, the common sense rule of addressing as "C.P.A." can be consistently and equitably adopted in the case of certified public accountants of any state, provided such addressees are either addressed at points, or are addressed from points, within the state or states which have granted them their professional degrees.

New York City, February 14, 1913.

C.P.A.

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### Oregon

A law regulating the practice of accountancy in the state of Oregon, and providing for a board of examiners and for granting the degree of certified public accountants to successful applicants, has recently been passed.

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### Alabama State Association of Public Accountants

At the annual meeting of the Alabama State Association of Public Accountants, held on February 22, 1913, the following officers were elected for the ensuing year: G. L. Lemon, president; W. G. Austin, vice-president; T. A. Ridout, secretary; C. S. Huffman, treasurer.

## Book Department

### A SHORT HISTORY OF ACCOUNTANTS AND ACCOUNTANCY.

By C. H. Woolf, M.A. *Gee and Company*, London, 1912. 284 pages.  
Cloth. \$2.75.

A very excellent little work intended for the use of students and for members of the profession, who wish a general knowledge of the origin, development and present conditions of accountancy.

This book first appeared as a series of articles in *The Accountant* of London. Its treatment of its subject, as the title indicates, is by no means exhaustive, but is complete enough for the student of accountancy, and will be of interest to the accountant as giving a brief but clear and well-written description of origin and development of his profession. The author's claim that the development of accountancy is a "manifestation of civilization," and that the history of each is really one and the same, will undoubtedly awaken no little interest.

The book is divided into four parts. Part I treats of the development of systems of accounting from ancient times to the end of the fifteenth century, and is the most complete and interesting of the book. Part II is a short section devoted to the growth of bookkeeping from the appearance of the first printed treatise in 1494 down to the present time. Part III discusses briefly the origin and progress of auditing, beginning with ancient Egypt. Part IV tells of the rise and progress of professional accountants and, though condensed, is extremely interesting. Its last chapter, particularly a discourse on the position and outlook of professional accountants—is worth careful reading by the younger men of the profession. The book closes with a bibliography of all bookkeeping works up to the year 1800.

The author, as he states in his introduction, has endeavored to produce a book that will serve the interests of the profession. His effort does fill a need and will undoubtedly be well received.

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### BOOKS RECEIVED FOR REVIEW

*Capitalisation.* By W. H. Lyon. 1913. 296 pages. 8vo, cloth. Price, \$2. Houghton, Mifflin Co.

*Depreciation, Reserves, and Reserve Funds.* By L. R. Dicksee, London. 1913. 3rd edition. 84 pages. 8vo, cloth. Price, \$1.40. Gee & Co.

*Handbook of Railroad Expenses.* By J. S. Eaton. 1913. 559 pages. 8vo, leather. Price, \$3. McGraw-Hill Book Company.

*How to Analyse a Railroad Report.* By John Moody. 1913. 224 pages. 16mo, limp leather. Price, \$2. Analyses Publishing Co.

*How to Invest Money Wisely.* By John Moody. 1913. 177 pages. 16mo, limp leather. Price, \$2. John Moody.

*The New Industrial Day.* By W. C. Redfield. 1913. 213 pages. 8vo, cloth. Price, \$1.25. The Century Co.

## *The Journal of Accountancy*

*Psychology and Industrial Efficiency.* By Hugo Munsterberg. 1913. 320 pages. 8vo, cloth. Price, \$1.50. Houghton, Mifflin Co.

*Railroad Finance.* By Cleveland & Powell. 1912. 462 pages. 8vo, cloth. Price, \$2.50. D. Appleton & Co.

*Selected Investments.* By R. W. Babson. 1912. 259 pages. 4to, leather. Price, \$3. Babson Statistical Organization.

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## Announcements

David S. Kerr, C.A., announces his retirement from the firm of Marwick, Mitchell, Peat & Co., and also from the firm of Marwick, Mitchell & Co.

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Charles Neville & Company, Certified Public Accountants, of Savannah, Georgia, announce that they have opened an office in the Heard National Bank Building, Jacksonville, Florida.

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Quail, Parker & Co., announce the opening of an office at 307 Crocker Building, Des Moines, Iowa, in charge of S. Bartlett Jones, A.C.A., C.P.A., who is a member of the firm.

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Child, Byrnes & Baker, New York, announce that Harry Mason Smith, C.P.A., has become a member of their firm, which will hereafter be conducted under the name of Child, Byrnes, Baker & Smith.

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Charles A. Klein, C.P.A., announces the dissolution of the firm of Greenlinger and Meyer with which he was formerly connected, and further announces that he has opened an office in the National City Bank Building, 55 Wall Street, New York, for the practice of accountancy.

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## Obituary

### FREDERICK C. TUFTS

On February 10, 1913, Frederick C. Tufts, C.P.A., Fellow of the Certified Public Accountants of Massachusetts, and a member of the American Association of Public Accountants, died suddenly at the Copley Square Hotel, Boston. The funeral was held from his home at 252 Clinton Road, Brookline, Mass.

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Official Organ of the American  
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## What is Involved in the Making of a National Budget\*

By FREDERICK A. CLEVELAND

It is difficult even to suggest the importance to the American people of a budget. The fact that we have gone on for one hundred and twenty-three years without an annual statement of affairs which may be readily understood, and without a definite programme as a guide to future work, would not excite any considerable comment were it not for the disappointment which we feel with the results. We have come to realize that the energies of our greatest welfare institution, the national government, have been misdirected. Lately we have come to realize that we have departed from principles that have been considered by us as fundamental to constitutional government. Finally, the American people have decided that something must be done, and that this something must carry with it a definite governmental plan or programme which the average citizen can understand and will support. It is in this relation that the question, as to what a budget may mean, finds its broadest significance.

### DEFINITION OF A BUDGET

First let us make sure that we understand each other. In this country the word *budget* has been very loosely used to signify at least five different ideas, *viz.*, (1) departmental esti-

\* This paper was prepared for the annual meeting of the Efficiency Society at New York, January 28, 1913. As Mr. Cleveland could not be present the paper was ordered printed as a part of the proceedings.

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mates, (2) a summary of departmental estimates for expenditure and an estimate of revenues prepared by a finance officer, such as a comptroller, (3) a statement of financial conditions, operations, and estimates by the executive to the legislature, (4) bills prepared by legislative committees, (5) acts of appropriation.

I am using the term in the sense in which it is understood in England, in France, in Germany, in other countries where a true budget system obtains. For this purpose, therefore, I will define a budget to be a summary statement submitted by the responsible head of the executive branch of the government to the representative branch—a statement which reflects present business conditions and operative results; one which carries also definite recommendations with respect to the future, including a proposed method of financing estimated expenditures.

*The budget as an instrument of control:*

Originally a budget was adopted as a means whereby the executive might be compelled to submit to the representative body and to the country an account of revenues and expenditures before further supplies would be granted. Later the practice was expanded to include the submission of a definite plan or list of proposals for future revenues and expenditures which the head of the administration was expected to explain and defend. The fundamental constitutional purpose of a budget is to provide the means whereby officers of government may be made responsive and responsible to the electorate, and to this end the executive and the legislature are required clearly to define the issues which are to be discussed. In this particular a budget procedure is to the electorate what a judicial procedure is to a court.

*The budget as a means of developing coöperation and avoiding conflict:*

Without a budget the usual attitude of the legislative and executive branches toward each other is one of suspicion, hostility, and conflict of powers as between these two branches of the service. A budget as it has developed in use is an instrument of precision which enables the legislative and executive officers to coöperate in the management and control of its business. This result obtains as a result of requiring each to take his fair share of responsibility for mistakes in policy or results of mismanagement.

## *What is Involved in the Making of a National Budget*

### **AN APPEAL TO BUSINESS EXPERIENCE**

The best way to approach a business problem is through the experience of business men. As business men most Americans are more or less familiar with corporate organization and management. Although we have been operating without a budget there is nothing new in the principles to be discussed.

#### *An example in corporate organization:*

In thinking about national business what I would have each of you do is to picture yourself as a member of a corporation with a hundred million shareholders—a corporation which is officered by a board of five hundred trustees on the one hand and by a president on the other. The question at issue is whether responsibility for the details of management should be in this unwieldy board or in the president; whether judgment about matters of current business should be exercised by committees appointed by the board or by officers responsible to the chief executive.

The issue may be better understood when it is said that this corporation transacts nearly every kind of business that is known to man. It employs 500,000 men in the regular performance of its activities; it has over 70,000 different offices; they are under the direction of 1,000 different operating chiefs who are organized under nine different executive department heads—these heads being appointed by the president. For the purpose of effectively relating the official responsibility for the management of this great corporation to the shareholders, the five hundred members of the board of trustees are elected to represent particular interests of localities, while the president, as the head of the executive branch, is elected by the shareholders at large. The volume of the business to which responsibility is to be attached may be suggested by the fact that the money transactions aggregate more than \$5,000,000,000 a year or \$16,000,000 each day, of which vast amount nearly \$2,000,000,000 is in the nature of receipts and disbursements for the current expenditures of the government, while more than \$3,000,000,000 is in the nature of trust receipts and disbursements, including currency trusts, Indian trusts, and sacred obligations of the government that have been undertaken for the welfare of those who have been specifically designated as legal beneficiaries.

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In this institution of which you are a member, the legal or charter relations of the board to the executive are practically the same as in the other corporations with which you may be connected—the same as those to which business men are accustomed, except that the board is larger, the business is more complex and the shareholders are more widely scattered. There is a further difference, also, in that each shareholder has only one vote, so that each member is on a plane of equality with every other member. Under the articles of incorporation the board is required to meet once a year; it may meet more frequently on call of the president. The purpose of this meeting, as with other boards, is to determine questions of policy; that is, it is called upon to decide what the corporation shall do and how much it will authorize executive officers to spend on each undertaking.

*Administrative problems to be solved:*

The administrative problems are also similar to those of a private corporation doing similar business. The president as the head of the corporation is charged with the same responsibility for carrying out policies of the board as the president would be in any corporation with which you may be acquainted. He is responsible for selecting and directing the heads of departments. He is responsible for every act of every subordinate in the same manner as is the chief executive of any business organization. He is responsible not only for developing efficiency in the organization but also for the economy with which expenditures are made. There are the same responsibilities, the same technical requirements in the construction of a ship, whether built by public or private agency. Questions of management are similar whether in operating a private or a public canal, school, hospital, or other undertaking. In other words, every problem which relates to the expenditure side of the business is common to all executives. It is in the policy-determining and revenue-raising or financial side that the principal differences are to be found.

*A question of board or executive control over administrative details:*

The foregoing is descriptive of the plan as originally con-

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ceived by those who framed the charter of this great corporation. Now let us catch a glimpse of the institution at work.

As required by charter the board of five hundred members gets together; at its annual meeting it organizes itself and in the regular course of business prescribes the ordinances and by-laws which shall govern the administrative's offices and departments. In doing so, however, instead of requiring that the president shall submit to them each year an account of stewardship—a balance sheet and an operation account—instead of requiring that the president as chief executive shall lay before them a definite proposal as to what in his opinion should be undertaken during the next fiscal period, based on experience and the best judgment of managers, it makes a by-law which requires that each of the chiefs of the 1,000 offices in the several departments or establishments shall come personally before committees of the board and answer their questions; and preparatory to such an inquisition it also requires that each such officer shall submit a statement of his plans, with estimates for expenditures; moreover, that this statement shall be submitted through the head of the department or establishment directly, without review or revision by the president as chief executive.

### *Is a weak board desirable?*

On the one hand, imagine yourself sitting as a member of a committee of this board of five hundred trustees interviewing the chiefs of as many of the 1,000 different divisions in the service as would be possible within the period of a session; imagine yourself by this method trying to get from these chiefs statements which would enable you to think intelligently about the many technical details of many kinds of business transacted, with all of which you are unfamiliar; and with this smattering of knowledge attempting to do what no administrator would attempt to do, namely, to decide administrative questions a year in advance. Then again, imagine yourself sitting with the whole board at the end of a session, attempting to take intelligent action on matters reported by one or the other of some thirty different committees which have submitted for your consideration a long list of decisions about administrative details without first having before them a definite plan. Let it also be understood that the persons who have been drawn before these committees are fearful

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lest the information which they give will be used against them to limit their powers and to circumscribe their actions, and that these committees are so organized that they are without the means of coördinating their efforts—and you have a picture of board management that I would get before you as a basis for judgment as to whether or not this is the best way to control the broad policies of a large business. Is this what you would expect if you were a member of a board of a business corporation?

*Is a weak executive desirable?*

On the other hand, imagine yourself chosen by the stock-holders as chief executive. Imagine yourself in complete isolation, selecting heads of departments who are asked to confer with you about matters of current business, but who in fact are helpless because the board, through its committees, insists on directing the heads of bureaus and divisions what to do—how to do it—insists upon placing upon each chief such limitations and restrictions as to make effective executive direction and control impossible. Imagine yourself responsible to your electors for everything that goes wrong, but with no staff for ascertaining what is being done—with no means provided for having statements of operating conditions and results brought currently to your attention, with every little bureau chief an autocrat within the limitations prescribed by the board. Imagine yourself a weak sovereign with a nominal kingship over a thousand feudal lords each well fortified behind his own walls, and you have the picture of the chief executive of your corporation.

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But you may say: Why this appeal to the imagination? If by reference to the every-day experience of the average man a clear picture has been drawn, the end of this introduction has been served. This description is not fiction, neither is there anything in it that is new or far-fetched. It may seem strange, but it is true to life.

*A century of institutional decay:*

Governor Wilson in his work on *Congressional Government*

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has pointed to some very interesting facts about the development of the activities of our federal government. In this, he describes the evolution of powers under the constitution, as a gradual invasion of the executive by the congress. He speaks of the constitution as an idol that we have worshipped in form, rather than as an organic principle which we have followed.

In this relation he says: \* "The constitution of 1787 is still our constitution; it is now our *form of government* in name rather than in reality \* \* \* the actual form of our present government is a scheme of congressional supremacy." (page 10)

Speaking of the presidency as it is, as distinguished from the presidency as it was contemplated by the constitution, Governor Wilson says: "That high office has fallen from its original first estate of dignity because its power has waned; and its power has waned because the power of congress has become predominant." (page 43)

And again speaking about the congress, he says: "Congress \* \* \* very early divided itself into standing committees \* \* \* and set itself through these to *administer* the government (page 44) \* \* \* ; it has entered more and more into the details of *administration* until it has virtually taken into its own hands all the substantial powers of government. \* \* \* it (congress) does not domineer over the president himself, but makes his secretaries its humble servants; not that it would hesitate to deal with the chief magistrate, but because our latter presidents have lived by proxy; they are the executives in theory and the secretaries are the executives in fact \* \* \*." (page 45)

Nor have the powers of the heads of departments been developed at the expense of the president, as is set forth in the same text: "It cannot be said that this change has raised the cabinet in dignity and in power; it has only altered their relation to the scheme of government; \* \* \* but although the heads of departments are thus no longer simple counselors of the president, having become in a very real sense parts of the executives, their guiding power in the conduct of affairs instead of advancing has steadily diminished because while they were being made indirectly parts of the machinery of the administration, congress has extended its own sphere of administration so that it is getting into the habit \* \* \* of managing everything."

\* See *Congressional Government*, 15th edition (Boston, 1900).

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A concluding characterization by the same authority is also in point: "We have had no great administrators \* \* \*. The presidency is too silent and inactive, too little like a premiership and too much like a superintendency." (page 204)

It is evident to everyone who has come into close contact with the government of the United States as it is that, even with our hard and fast written constitution, it is not what the fathers intended, but what four generations of the children who have lived in ignorance of what the government is doing have made it.

*Constitutional principles impaired:*

The principle which is fundamental to constitutional government is responsibility. This is the principle which democracy forced upon a predatory hierarchy that exercised its powers as a result of conquest. The evident purpose of our constitution was to provide the means for determining and enforcing official responsibility. Since its adoption, however, every step has been away from this purpose. A few brief references will suffice to make clear the initial concept.

Article I begins with the statement, "All legislative powers herein granted shall be vested in the congress of the United States." This broad statement of principle was not left to stand alone, but was made more specific as bearing on responsibility for management. Section 8 of article I provides that "Congress shall have power to lay and collect taxes, duties, imposts and excises, and to borrow money on the credit of the United States," while section 9 requires that "no money shall be drawn from the treasury but in consequence of appropriations made by law." Thus to congress is given the power and responsibility for determining all matters of legislative policy and for deciding what revenues shall be provided and what amount shall be expended.

*Provision made for a strong executive:*

But it is also clearly evident that the power given congress was not intended to be used in a manner to deprive the executive of the exercise of discretion or to interfere with the location and enforcement of responsibility for efficiency in management or for the economy with which funds are expended. Article II begins with the statement that "The executive power shall be in a president of the United States." In the very same paragraph

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which gives to congress control over appropriations is found the constitutional requirement corresponding to the initial concept of a budget, *vis.*, that the administration shall publish "a regular statement and account of the receipts and expenditures of all public money." This idea is further developed in a subsequent clause which makes it the duty of the president to lay before congress and the country a definite constructive statement or proposal. The constitution specifically states that the president "shall from time to time \* \* \* recommend for their consideration such measures as he shall judge necessary and expedient." In these clauses of the constitution are to be found almost an exact definition of modern budget procedure, and this prescribed procedure too is brought into definite relation with those prescriptions of powers, duties, and limitations that are to be interpreted in terms of official responsibility.

### *Provision made for a strong legislature:*

On the one hand, it is clear that the intent of the framers of the constitution was to make the congress a representative board which would give attention to broad questions of policy; on the other it is quite as evident that it was not intended that the congress should take action within the field of administration. Congress was made responsible for determining how, under the constitution, the government shall be organized, for directing and controlling what service shall be rendered, for deciding what amount of funds shall be raised by revenue measures, and what amount shall be borrowed in order to meet prospective expenditures. There is nothing in this instrument or in the discussion prior to its adoption to indicate that it was contemplated that, when the government had expanded its activities to such an extent that it had 500,000 people on its pay roll, the congress would attempt to decide whether the salary of a particular janitor should be \$600 or \$700 a year. There is nothing to suggest that the congress should turn over to irresponsible committees or sub-committees of its own members the determination of how many clerks shall be used in each of one thousand different offices and subdivisions of administrative work and what shall be the salary paid to each clerk. There is nothing in the constitution to suggest that the congress should finally develop into a political employment bureau and pass on the promotion and demotion of indi-

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vidual employees. There is nothing to suggest that it should attempt to administer all the details, thereby breaking up executive discipline and reducing chiefs of divisions to subservience to the chairmen of its committees. On the other hand there is every reason to think that the very purpose of the constitutional prescriptions quoted was to enable congress to confine its activities to questions of policy; to enable its members to give their thought to a well considered plan or programme of work and to the determination of the amounts that would be necessary to carry on the work of the government as well as the methods of financing these expenditures. This without doubt was the intention of those broad-minded men who framed the constitution.

But what has happened is this: Although the government is at the present time employing thousands of technically trained administrative officers, it has, through its congressional committees, proceeded to handicap and limit these men in such manner as to deprive the people of the benefits of an efficient service. Congress itself has gone over into the field of administration—has attempted to decide practically every question involving administrative discretion, has restricted the use of the judgment and training of experts who have been employed to manage the technical details of public business, with the result that public funds are wasted and the people are thoroughly dissatisfied with the public service. And not a little of this dissatisfaction is due to the manner in which each branch of the service has sought to discredit the other in the eyes of the people.

*Inefficiency and waste the result of irresponsibility:*

Not only has administrative efficiency been impaired, but members of congress have also been handicapped by being so overwhelmed with details that congress has been forced both to abandon its real work and also to turn over the administrative details to its committees. Thus at present the administration is controlled by irresponsible committees and subcommittees who determine what shall be done by irresponsible bureau heads. The government is operated at a high cost. Matters of policy and finance are neglected. All the particular functions for which each branch of the government was established have been subverted. Instead of developing the powers of government along such lines as effectively to establish and enforce responsibility

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for each action taken, instead of evolving a system which will provide for a constantly increasing efficiency with experience acquired in the management of affairs, instead of utilizing the executive branch of the government for giving to the public the best possible service at the least possible cost, there has been an evolution of processes and activities that has been in the direction of destroying all responsibility for inefficiency and waste. Congress has undertaken to settle matters which should be left to administrative judgment. The president, as chief executive, has failed to assume the leadership and to exercise the powers granted. Although initially the president gave much of his personal time and thought to the details of administration, as these details became more numerous and encumbering the chief executive, having failed to develop an expert staff, became farther and farther removed from administrative considerations, until at the present time he, as the only officer who represents the people as a whole and who is constitutionally responsible for the manner in which the business is done, is in almost complete isolation. Instead of being an executive his chief function is a negative one—that of vetoing legislation; his chief occupation is that of a distributor of party patronage.

### **WHAT MAY BE DONE UNDER OUR CONSTITUTION**

In considering what is involved in making a national budget the first question to be decided is whether we shall undertake to develop an efficient government under our present constitution, or accept the conclusion of certain writers that we are practically helpless until we adopt the British system.

#### *Fallacy of reasoning from analogy:*

In my opinion there are two fallacies in the reasoning that leads to this conclusion. *First*, premises for reasoning are used which are not based on experience. We have never tried to develop; we have never taken the steps necessary to find out whether or not our constitution is adapted to efficient administration. *Second*, the history of parliamentary government is itself an argument in favor of our own system if adequately developed. In urging a parliamentary system it is commonly said that the parliament dominates the government. As a matter of fact (except

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in the matter of his own selection and tenure) the head of the British administration controls the legislature. In other words, the prime minister is a real executive such as a business man is accustomed to. It is the prime minister as the head of the administration who assumes responsibility for the manner of doing business; he assumes responsibility for making report to the parliament on what has been done; he assumes responsibility for submitting to the parliament definite proposals as to what in his opinion should be undertaken; he even goes to the point of assuming responsibility for recommending what financial measures should be taken in order to meet the proposed expenditures. On these proposals he is ready to stand or fall as they may appeal or fail to appeal to the judgment of the people. Incidentally, the result has been that by reason of the executive's assuming responsibility for leadership before the country he has forced the parliament to consider and act on broad measures of public policy instead of spending their time to decide whether or not a particular janitor's salary shall be increased \$10 a month.

Incidentally, the result of executive leadership has been that all matters of administration are left to the prime minister and the heads of departments who are selected by him, and the parliament finds time to consider questions of policy. By reason of the prime minister's laying before parliament a definite statement which shows present conditions and past results as well as one which contains definite proposals as to what in his opinion should be undertaken, he has placed in the hands of members of the legislative branch the data necessary to the consideration of policy and forced them to engage in oral debate on issues affecting the general welfare of the nation. This attitude and procedure have kept the parliament out of the realm of petty politics and kept the whole record of the governmental proceedings before the country.

*Our constitution adapted to efficient budget procedure:*

Those who point to this result as a reason for changing our constitutional form do so on the theory that it would be more consistent with ideals of popular government to have an executive selected by the legislature and for an indeterminate tenure, than to have an executive chosen by an independent electoral

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college for a fixed term of years. In my opinion this conclusion is not based on experience nor is it based on sound reasoning. The plan has not operated that way in private corporations. Moreover, under a constitution like our own an effective executive has never been developed, and therefore no comparison can be made. The fact is that the development of an effective chief executive has never been seriously considered. When an effective executive has been developed it will be time for us to compare the relative advantages and disadvantages of the one system or the other. Theoretically, there are some very definite and concrete advantages in favor of a legislative recall of the executive, such as obtains under the British system. On the other hand there are many advantages which might be urged for a fixed term of years and for independence of the executive—the system provided for by our own constitution. At this time what the country needs is not a change in the form of government, but constructive leadership by a real executive using the powers already conferred; leadership which will demand for itself a competent staff that may be used to keep the executive informed about what is going on; leadership which is based on a knowledge of existing conditions; leadership which is not afraid to assume responsibility for going before the people; leadership which will utilize the superior powers of the president to formulate issues which may be understood and force the acceptance or rejection of a definite welfare programme; leadership which stands for efficiency in the conduct of the affairs of the government.

In my opinion all these results can be obtained under our constitution. Our present system of election is quite as well adapted to constructive leadership as is the English method, provided the leader becomes a real executive after he has been elected and forgets that he is a part of a non-governmental agency organized for the purpose of controlling the electorate. There is a difference in the method of enforcing responsibility here, but there is also a difference in the stability which may be given to policies for which the president becomes the advocate. In any event even a mistaken policy cannot last more than four years. As a matter of fact there is no ruler in the world who is more sensitive to public opinion than the president of the United States; nor is there any leader who is less potent when he does not have public opinion and the congress back of him.

### CHANGES NEEDED IN ORGANIZATION OF THE CHIEF EXECUTIVE

Before a national budget may be adopted a second decision must be reached, namely, that the president of the United States may be given the ordinary machinery of a corporate business with which to conduct its affairs. At present the president has practically no staff. For the constitutional head of an administration there is practically no means for obtaining information about what is going on. In order to get together a statement of financial condition as of June 30, last, and an operation account for the fiscal year ended on that date, it was necessary to collect the data *de novo*. Even the analysis of estimates and the preparation of summaries in such form as to present the appearance of a budget required a special investigation and report. There has never been developed in the government of the United States a regular organization for doing these things, and there has never been a basis for clear thinking about any problems of administration, to say nothing of enabling the executive to submit to congress and to the country an annual budget. The organization of the office of chief executive of the government of the United States is about the same as would be established to conduct the correspondence and manage the household of a society belle in the city of New York. The organization and technique which have been developed in departments for keeping members of the cabinet in touch with what is going on would discredit any department executive in the world. With few exceptions business experience and knowledge of results are written in the brain tissues of those who have the immediate contact with the problem, and this memory and experience is made available to irresponsible committees of congress through a process of inquisition, or in compliance with special statute law. The record thus made is a distorted picture, drawn by those who have no responsibility for accuracy of portrayal and who are animated by a spirit of hostility toward administrative officers who are responsible. Moreover, when such a record is made it is made available too late to have any administrative significance.

### CHANGES IN CONGRESSIONAL ORGANIZATION

The introduction of a budget system will also require a re-

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organization of the congressional committee system in such manner that congress may be equipped to consider and determine questions of policy instead of attempting to determine matters of minor administrative detail. Such an organization would be necessary to coöperation between the legislative and executive branches in reaching decisions that would commend themselves to the country and would make for the adaptation of the government to the needs of the people. Another important result of such a system would be to establish in congress a majority and minority leadership which would stand for or stand against the proposals of the responsible head of the administration. It would bring about a new alignment in partisan politics which would place the president, as he should be, at the head of the pro-administration party. In other words it would force the organization of parties on pro-administration and opposition lines. This would be effected without any change in the constitution.

What I wish to impress is this: A budget procedure is more than a technique. A budget is more than an account. Its preparation is primarily a technical matter, but its use rests on a broad democratic principle. A budget is essential to the effective operation of constitutional government. It is necessary to the location and enforcement of official responsibility. It is one of the cornerstones of modern democratic political organization. It finds its first expression in *Magna Charta*. In its modern development it is the most effective instrument for making government responsive to the will of the people that has ever been devised.

Another important fact must be faced. The creation of another committee in congress, or the organization of a joint committee, will not reach any of these ends. A joint committee may be essential to intelligent legislative action, and in a bi-cameral legislature may be an essential part of the machinery required for determining what requests will be granted and what revenues will be raised; but if this agency is employed to make a budget it can only serve to divert attention while the Congress still further invades and subverts executive power.

### CONCLUSION

The question before the American people is: Shall we hold a single man responsible for the efficiency with which the public

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business is managed and for the economy with which funds are used, or shall we still further enlarge on a system of irresponsible congressional committees? The question for the chief executive to decide is whether he will accept the easy and customary course or go before the country assuming responsibility for every item contained in a budget prepared and submitted in the manner prescribed by the constitution.

The issue which is presented to congress is: Will it recognize the increasing limitations of a practice that has already reduced that branch of the service to a body which makes progress by the momentum of mass and weight, and whose action is in considerable measure determined by forces that are not controlled by ideals of public welfare, or will it assume the normal constitutional functions of a legislative agency which will have time and opportunity to discuss important issues and gain the respect of one hundred million people for the manner and intelligence in which the legislative business of the nation is conducted?

These are large responsibilities, but they must be met before the government of the United States may be efficiently managed, and the millions of dollars taken from the pockets of the people may be economically applied to the welfare purposes for which our federal establishment is organized and is maintained.

# Treatment of Interest on Manufacturing Investment

(SECOND SERIES)

## Interest as an Element of Production Costs

BY EDWARD L. SUFFERN

The discussion as to whether interest shall or shall not be treated as an element of cost rather than as an element of profit, appears to the writer to involve the manner in which a fact plus a point of view shall be stated. Hence such a discussion will of necessity be inconclusive, for the viewpoints do not agree.

Terms and definitions of terms do not help us much, but facts remain facts however we view them. If a man should borrow all the capital for his business, at what point would his costs terminate and his profits begin? If we were to take his point of view, it would have to be that no profits could accrue until interest as well as insurance and other general charges had been covered. It is beside the mark to say that the interest he would have to pay should be considered as a part of the profits payable to the lender. So far as he is concerned, there can be no profits to him until his interest has been earned, and it certainly is part of his cost of doing business.

That interest rates are variable does not affect the fact—other elements are variable likewise—material and labor are variables when one location is compared with another, yet they must be treated as costs quite as surely as if they were everywhere the same.

If a contract were taken for the construction of some special machine tools, on the basis of cost and a percentage, and this contract required one-third of the plant capacity and one-third of the working capital for a given period, it seems clear that no accurate record of costs could be made that did not include interest as one of the elements of production. No true comparison could be made as to the relative advantage of special as against regular classes of output without including in the costs of each the interest item.

In many classes of industries the distribution of the interest as an element of production costs might be considered as an un-

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necessary refinement of accounting. In textile production, for example, where the variation of costs of different classes of output is determined so largely by the difference in cost of material, and where the labor and machine usage elements are practically the same for all outputs, it may be quite possible to treat the interest item as a whole, rather than to distribute it through production. Even in such instances, however, the relative economy of using one type of machines over another type is affected by interest considerations.

In the opinion of the writer, the manner in which interest shall be expressed depends very largely upon the conditions obtaining in each instance, the character of the business and the output and the uniformity or variations thereof. In other words: What is it you ought to know? Determining this, how should this knowledge be obtained?

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Interest Should be Included as Part of the Cost

By J. LEE NICHOLSON

The writer firmly believes in the theory that interest on capital invested should be charged to the proper expense accounts before ascertaining the actual profit from manufacturing or trading.

There is a large difference in risk between capital invested in stocks, bonds and real estate and capital invested in manufacturing or other commercial undertakings; and it is not to be disputed that capital invested in commercial enterprises is liable to far greater risk than that of capital invested in securities. It is only fair that the capital invested in commercial enterprises should have credit for at least the same return as that in securities before a trading profit is shown.

The two articles in the April number of *THE JOURNAL* by Wm. MORSE COLE and A. HAMILTON CHURCH give such logical reasons for the inclusion of interest as a part of the cost that the writer desires to quote the following paragraphs as aptly setting forth his views:

"Prices must be fixed at such a point that they shall at least cover (1) materials, or goods; (2) labor, or service; and (3) expense burden, or what are commonly called 'overhead charges.' Obviously, if the last of these is not quite fully covered, the continuance of production or

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service is not economically advisable (unless, of course, the work serves other purposes than those which are immediately connected with the initial enterprise). If, again, the income provided by the price gives less than a proper amount as interest on the investment—investment in the form of capital locked up in machinery, facilities, material, or waiting produce—the return is not economically sufficient to make the enterprise self-supporting. If this interest is not included in the expense burden, therefore, it must be added later, somewhere, before one can know whether the return is adequate to make the enterprise self-supporting. Since one of the purposes of accounting is to show whether the return is adequate, the interest would seem necessarily to be involved somewhere in the accounting."

Wm. MORSE COLE.

"Wherever capital is made use of, whether in the power plant, in the erection of buildings, or in the purchase of costly special machinery, the use of such capital has to be paid for, somehow and somewhere. It is only rational that it should be paid for by just those processes (and therefore those jobs) which involve its use. To exclude interest charge from cost of these jobs is to ignore one of the most important matters that we should know, namely—how far this use of capital is economically justified."

A. HAMILTON CHURCH.

The citing of some examples may tend to throw additional light on this most interesting subject.

Take, for example, a textile plant. This plant comprises a yarn mill, a weaving mill, and a knitting mill. The yarn mill manufactures the yarn for both the other mills. As there are many mills manufacturing yarn exclusively, this company is in position either to buy yarn or manufacture it itself.

The prime question of importance in reference to the yarn mill is whether or not it is profitable to maintain this mill considering the capital tied up. The capital invested in this particular mill, we will say, amounts to \$200,000.00. If the yarn were bought instead of manufactured, this \$200,000.00 could be invested in other departments of the business, or invested to draw interest for the company, or distributed to the stockholders, thereby allowing them to invest the proportion they receive at interest.

It is the writer's opinion, considering that the total investment is used in manufacturing, that it is necessary to charge the interest of the investment to the cost of production. No true

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comparison can be made between the cost of the yarn manufactured and the purchase price of yarn, unless the interest is charged as stated.

For another illustration let us take a plant manufacturing axles, one mill being located in the east, and another one in the west, both plants manufacturing exactly the same product. The western plant was recently established to meet western competition, and, as the cost of freight is a large item, the advisability of this matter can be readily understood. In the western plant the machinery was purchased, but the building and grounds were leased for twenty-one years, with the privilege of purchase at the expiration of that time. The eastern plant was owned in its entirety. The company therefore had a rental charge against manufacturing in one plant, and no charge for rental in the other. This company had not, up to this time, ever charged interest against its manufactured product, and now the question arose as to how to compare the costs between the eastern plant and the western plant. As all other elements were equal, and no interest was charged on the capital used in manufacturing in the eastern plant, the result would necessarily show that the cost was greater to manufacture goods in the west than it was in the east. The question was naturally settled by the eastern plant charging against the cost of production interest for that part of the capital used in the manufacture of the product in the east. In no other way could a comparison of production costs be made. The opponents of interest charged as costs perhaps would claim that the rent of the western plant would be charged as administrative expenses. In answer to this, I would say that whatever expense is necessary to operate a plant must be charged against the cost of the product if true costs are to be obtained. It is just as necessary to have buildings and grounds in connection with a manufacturing establishment, as it is to have machinery and workmen for turning out the product.

Suppose we take it for granted that the concession is made that the rent of a building, used only for manufacturing purposes, should be charged as cost of production. Why, then, should not the interest on the capital invested—where the building is owned—be charged against the cost of the product?

Fundamentally, the question is whether or not interest on capital should be charged as an expense of doing business. If

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it is conceded that interest should be so charged, surely no one can seriously make an argument that this charge should not be allocated over those elements of business where the capital is invested.

It may be of interest to the readers of THE JOURNAL to submit a few additional opinions besides those contained in the April number.

In *Cost Accounts* by L. WHITTEN HAWKINS, page 109, he says:

"No charge should be made in cost accounts for the services of a principal, nor for interest on his own capital. Whatever return is produced by this is profit, and not an expense of manufacture."

In the bulletin of the American Economic Association, pages 119 and 120, ARTHUR LOWES DICKINSON is quoted as stating:

"The manner in which capital is provided cannot affect the cost of manufacture."

This statement was referred to by WM. MORSE COLE in the same bulletin, pages 129 and 132, from which the following quotation is taken:

"Mr. DICKINSON and I, you see, are in perfect agreement as to what we want—namely, isolation of causes; but the line of cleavage between causes we are inclined to draw differently. Mr. DICKINSON, conceiving profit to be a certain surplus divisible between all three of the agents of production—labor, land, and capital—wishes to exclude all interest from cost; while I, conceiving profit to be only what is left after rent, pure interest, and wages have been paid—that is, virtually the compensation for risks taken—wish pure interest, and pure interest only, to count as a cost. Many accountants count as cost all interest on investment, including all risk elements."

J. C. DUNCAN, in the same bulletin, pages 146 and 147, also in answer to MR. DICKINSON, states:

"To the speaker's mind all such charges are really direct additions to the cost of production, and should be apportioned directly to the various departments involved. Rent and interest should not be regarded as divisions of profits, because profit does not start until provision is made for these items."

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F. E. WEBNER, in his book *Factory Costs*, in commenting on MR. DICKINSON'S views, writes as follows:

"From the standpoint of practical costing, MR. DICKINSON'S logic is not satisfactory. The interest on an investment in plant and equipment or rent paid for use of factory would seem to be almost as direct an incident of cost as labor, material, power, or incoming freight. It is obvious that the manufacturer cannot make his product without a plant, and its rental or interest charge is usually one of the first incurred manufacturing expenses. Why, then, should it be differentiated from all other manufacturing expenses and be excluded from the cost of product?"

MR. WEBNER, in commenting on the views of J. C. DUNCAN, on page 155 of his book, has this to say:

"It is very obvious that rent of factory buildings and interest on money invested in factory and for manufacturing purposes must appear in some way in the cost of conducting the business, whether they be regarded as production costs or as a division of profits. From the practical standpoint any cost necessarily incurred in the production of goods is most conveniently and most safely included in production costs."

On page 47 of *Multiple Costs* by STANLEY GERRY is the following quotation:

"We may even carry this a stage further, and also charge to the factory interest on the stocks of raw material on the same basis, for whatever advantage accrues to the factory from the employment of extra capital the cost of same should appear as a charge against its efficiency."

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Interest Does Not Enter Into the Cost of Production

By J. PORTER JOPLIN, C.P.A.

The prime object in obtaining the cost of manufactured goods, merchandise to be sold, or some commodity to be supplied to the public, is to assist in determining the price for which the merchandise or commodity can be sold and allow a reasonable and fair margin of profit; also to enable manufacturers, producers or dealers to compete intelligently in the open market. Another reason why a correct cost accounting is desirable is the demand for and the necessity of a correct or fair value of all merchandise or products which would enter into the balance sheet as an asset when such balance sheet is needed or is in demand.

### *Treatment of Interest on Manufacturing Investment*

In determining the cost of manufactured goods it is necessary to know what has gone directly into such goods, such as labor and material, to which should be added its correct proportion of overhead charges or burden; and when goods, product, or material of any description is manufactured or created through power, or machinery, or fixtures a fair figure for depreciation on the machinery used should be added.

Why the question of interest should enter into the cost of material or manufactured goods has not been cleared up with any degree of satisfaction by the exponents of this view. It is a fundamental principle that when goods are bought or manufactured to be sold, no profits are to be considered until a sale is perfected, and yet by following out the plan of charging interest in determining costs a profit is taken (on paper) at an early stage of the proceedings. Neither does it seem logical to charge interest on an amount invested in certain machinery when the machinery is only one factor in the invested capital needed to produce the product on which the cost is to be determined, and in some cases a factor of the least magnitude. As a general principle it would seem not to serve the end for which it was intended, and is a most undesirable practice.

A balance sheet prepared along lines where interest has been included in determining the value of goods in process or of manufactured articles is open to severe criticism and it is doubtful if a balance sheet so prepared would be accepted as being sound in premise. It certainly would not be viewed with the same favor when seeking additional working capital or a temporary loan as the one presented where no interest has been figured in determining the value of the product on the basis of cost.

Invested capital most certainly has its place, and is considered in due course at the end of each closing period. After all charges against profits have been made, including interest on borrowed money, and fixed charges such as interest on bonded indebtedness, it receives the residue, either in the form of dividends, or added book value to the capital stock as reflected in the surplus of an incorporated company, or in the capital account of an individual or of a firm of individuals.

## Determination of the Income Rate of Investment

BY BERTRAM D. KIBBEN, C.P.A., LL.B.

The precise determination of the income rate of investments is a problem which, though rarely resorted to in commercial circles, occasionally confronts the accountant. Comparatively few accountants are proficient in the use of logarithms, and for the purpose of illustrating a sufficiently accurate method by which the income rate of investments may be determined without the use of logarithms, the writer submits the following method. It is based on the methods of successive approximations coupled with interpolation.

The values of an investment do not vary in the same ratio of progression in which the income rate varies, but they vary with the power of the rate. Hence when large values are to be computed, or the investment has a long time to run, simple interpolation is inaccurate. Simple interpolation is also insufficiently accurate when the required argument exceeds one-half of the difference of the arguments employed. But when the investments are comparatively small simple interpolation will, in the majority of cases, be sufficiently exact.

The doctrine of interpolation is thus stated by Professor CHAUVENET:

Let  $T$ ,  $T + w$ ,  $T + 2w$ ,  $T + 3w$ , etc., express equidistant values of the variable;  $F$ ,  $F'$ ,  $F''$ ,  $F'''$ , etc., corresponding values of the given function; and let the differences of the first, second and following orders be formed as expressed in the following table:

Argument	Function	1st diff.	2d diff.	3d diff.	4th diff.
$T$	$F$	$a$			
$T + w$	$F'$	$a'$	$b$		
$T + 2w$	$F''$	$a''$	$b'$	$c$	
$T + 3w$	$F'''$	$a'''$	$b''$	$c'$	$d$
$T + 4w$	$F^{(4)}$				

The differences are to be found by subtracting downwards, that is, each number is subtracted from the number below it,

## Determination of the Income Rate of Investments

and the proper algebraic sign must be prefixed. The differences of any order are formed from those of the preceding order in the same manner as the first differences are formed from the given functions. The even differences (2d, 4th, etc.) fall in the same lines with the argument and function; the odd differences (1st, 3d, etc.) between the lines.

Now denoting the function corresponding to a value of the argument  $T + nw$  by  $F^{(n)}$  we have from algebra:

$$F^{(n)} = F + na + \frac{n(n-1)}{1.2} b + \frac{n(n-1)(n-2)}{1.2.3} c + \frac{n(n-1)(n-2)(n-3)}{1.2.3.4} d + \text{etc.}$$

in which the coefficients are those of the  $n^{\text{th}}$  power of a binomial.

In the formula the interpolation sets out from the first of the given functions, and the differences used are those of their respective orders. If  $n$  be taken successively equal to 0, 1, 2, 3, etc., we shall obtain the functions of  $F$ ,  $F'$ ,  $F''$ ,  $F'''$ , etc., and intermediate values are formed by using fractional values of  $n$ . We usually apply the formula only to interpolating between the function from which we set out and the following one, in which case  $n$  is less than unity. To find the proper value of  $n$  in each case let  $T + t$  denote the value of the argument for which we wish to interpolate a value of the function; then

$$nw = t \quad n = \frac{t}{w}$$

that is,  $n$  is the value of  $t$  reduced to a fraction of the interval  $w$ .

The formula therefore becomes for simple interpolation:

$$F^{(n)} = F + n[a + \frac{n-1}{2}(b + \frac{n-2}{3}(c + \frac{n-3}{4} + \text{etc.}))]$$

But when the powers of the fractional part of the argument are required it becomes:

$$\begin{aligned} F^{(n)} &= F + n\left(a - \frac{b}{2} + \frac{c}{3} - \frac{d}{4} + \frac{e}{5}\right), \text{ etc.} \\ &+ \frac{n^3}{1.2}(b - c + \frac{11d}{12} - \frac{5e}{6} + \dots), \text{ etc.} \\ &+ \frac{n^5}{1.2.3}(c - \frac{3d}{2} + \frac{7e}{4} - \dots), \text{ etc.} \end{aligned}$$

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$$+ \frac{n^4}{1.2.3.4} (d - 2e +), \text{ etc.}$$

In the problem to be presented the terms beyond  $c$  become insensible.

Let us now take a problem with which an accountant is liable to be confronted in his practice. The amounts and the periods are both stated at large amounts so that the full effect of the method may appear, and inasmuch as bonds or investments are more frequently bought between interest maturity dates than on them the problem is thus stated:

Required the income rate on \$1,000,000— $3\frac{1}{2}\%$  per annum interest bearing bonds, interest payable semi-annually, dated January 1, 1907, maturing in thirty years, bought March 20, 1912, for \$948,000.00.

The first step is to determine approximately the amount of the 50 period function.

There has been paid for the investment .....	\$948,000.00
Deduct for tentative purposes purely, so as to find from bond tables an amount roughly approaching a tentative function, the interest paid for $\frac{4}{9}$ of a period and assume it to be 80 days' simple interest on the value of the bond at the bond rate.....	7,777.78
Tentative function .....	<u>\$940,222.22</u>

An inspection of bond tables shows that the function required, .94022222, lies between 50 and 49 periods at both of the rates .0195 and .01925. We therefore use the function for 50 periods at the rates .0195 and .01925 respectively for the purpose of obtaining a tentative argument, and inasmuch (as will appear later) as we shall, for the purpose of accurately determining the rate, need, according to the method of interpolation, at least four successive functions, we further use the functions for the arguments .019 and .01875 thus:

Argument rate	Function value	1st diff. <i>a</i>	2d diff. <i>b</i>	3d diff. <i>c</i>
.0195	.93648705	.00764444		
.01925	.94413149	.00772666	.00008222	
.019	.95185815	.00780984	.00008318	.00000096
.01875	.95966799			

## Determination of the Income Rate of Investments

Then we compute an approximate rate in which we denote the tentative function required .94022222 by  $y$ , thus:

	Argument	Function	Function
	Rate	Value	Value
	.0195	= .93648705	= .93648705
	.01925	= .94413149	$y = .94022222$
Difference	.00025	: .00764444	$x : .00373517$
Solving the equation we have as the value of $x$ ,			—.000122
Argument			.0195
Tentative rate			<hr/> .019378

We next recompute the present value of \$948,000 at this rate. It involves *work* unless logarithms are used. The value is expressed by the problem  $.948000 \div (1 + .019378)^{4/9}$ . The answer is .93994800, very nearly and sufficiently exact for present purposes. Substituting this as the new value of  $y$  we restate the equation, the last member becoming .939948 — .93648705 = .00346095, and we have .00025 : .00764444 =  $x : .00346095$ .

Hence $x$ is	<hr/>	—.000113
Argument	<hr/>	.0195
New rate	<hr/>	.019387

Recomputing the function  $y$ , with this value we find it to be .93994433 very nearly. This is substantially within a few cents of the 50 period value.

We now compute its value by the formula:

$$F(n) = F + n(a - 1/2b + 1/3c) + \frac{n^2}{2}(b - c) + \frac{n^3}{3}c, \text{ etc.}$$

This is sufficient as the remaining terms are insensible and we have

$$w = .0195 - .01925 = .00025; t = .0195 - .019387 = .000113.$$

$$\frac{t}{w} = \frac{.000113}{.00025} = .452 = n, \text{ and hence}$$

$$\begin{aligned} F &= .93648705 \\ + .452 (.00764444 - .00004111 + .00000032) &= .00343685 \\ + .1021 (.00008222 - .00000096) &= .00000830 \\ + .0308 \times .00000096 &= .00000003 \end{aligned}$$

$$\begin{aligned} F(n) &= .019387 \\ \text{But the function required is} &= .93993223 \\ &= .93994433 \end{aligned}$$

a difference of

$$\underline{\hspace{1cm}} .00001210$$

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We have from the approximation  $.00025 = .00764444$ , therefore  $.00001 = 30.578$ , and to obtain the correction for the rate we have

$$\begin{array}{rcl} \text{Argument} & = & \text{.0000004 = correction} \\ .00001210 \div 30.578 & & \text{.0193870} \\ \hline \text{and we have as the rate} & & \text{.0193866} \end{array}$$

This rate computed for 50 periods gives  $.93994446$ , within  $.00000003$  of the function required and leaves in practice 3 cents to be distributed over 50 periods of accumulation and renders any recomputation of the present value of  $y$  with this rate superfluous.

The precision of this method is doubtless worthless from a commercial standpoint. It has value, however, for the student and the accountant, so that if it be required of him to state actually the values of investments he may have a method involving less work than he might otherwise have.

# The Accounting of Interest and Discount on Notes

BY JOHN BAUER

*Assistant Professor of Economics, Cornell University*

## SECOND ARTICLE

In the preceding article, the cycle of the interest account was completed, the various items having been followed through a regular financial period. We now turn to a critical examination of the account itself.

Theoretically the nature of the different entries in the interest account can be explained from first to last according to correct principles. We are concerned throughout with asset and liability values and their changes, and not with earnings and costs, as is usually assumed. But it is nearly impossible for a beginning student to follow the abstruse and complicated relationships without confusion. Even a person understanding the account pretty thoroughly is likely to fall into momentary confusion in explaining a particular entry. As a matter of fact, the great majority of writers are either altogether wrong in their explanation of the entries, or they make no pretense of explanation, satisfying themselves with mere rules.

From a practical standpoint we may make the following principal criticisms against the Interest account:

(1) It does not give sufficient information about the business. It is not enough for the manager to know what were the net interest gains above costs, or net costs above gains, for a period. He should know separably what were the gains and what the costs. The two have no dependence upon each other; the gains come from notes receivable and the costs from notes payable—why should the two be balanced against each other? Certainly, to find the standing of the business you would not balance notes payable against notes receivable. Is it any more desirable to balance the returns realized from the one against the costs of the other?

As a matter of fact, the manager of the business should know in detail the facts relating to earnings and those relating to

costs. He should know not only the complete interest earnings, but also those from the different classes of notes, *e. g.*, mortgage or unsecured, interest bearing or non-interest bearing. Likewise he should know not only the total interest costs, but also those from different classes of obligations. Obviously these facts cannot be secured from the Interest account as it stands, except through a great deal of separate analysis and calculation. An account should show clearly and directly its share of the facts and results of the business. The Interest account falls far short of this standard.

(2) It has no statistical value. For statistical purposes, the items of the account should be homogeneous; the debits should represent one certain kind of transactions, and the credits a certain kind; then the sum of the debits for the period should represent something distinctive, likewise the sum of the credits; the debits and credits should be definitely related and their balance should show a precise fact or result of the business. Look at the Interest account: the entries are mixed and confused; they have no clear relations to each other; the sum of debits signifies nothing, nor does the sum of credits. Statistically the account is worth exactly nothing, and it is the statistical end of accounting that is becoming more and more important to proper control of the business.

(3) When the third class of entries during the period is omitted, which is usually the case both as the account is taught by most texts and as it is employed by most business concerns, even the net results are vitiated. The net earnings or net costs may be over or under stated. Perhaps two illustrations will suffice to bring out this point clearly.

Suppose during the month a note of \$1,000 is acquired with interest accrued \$30; Notes Receivable is debited \$1,000, but the interest accrued, \$30, which should be debited to Interest, is neglected. Now, at the end of the month in calculating the interest accrued on notes receivable, \$32 is included for the note in question, allowing an extra accrual of \$2 for the time the note was held by the business. The \$32 appears then as a credit in red ink, and, since it has no offsetting debit anywhere, obviously the effect is to show earnings of \$32 for the month—a gross and indefensible misstatement. If, however, the \$30 interest accrued had been properly debited when the note was

### *The Accounting of Interest and Discount on Notes*

first acquired, this would appear as an offset to the \$32 red ink credit at the end of the month, and there would appear then only \$2 earning for the period on the note in question—which would be proper. The \$30 interest accrued when the note was acquired could in no sense be regarded as earnings of the business. It was an asset, and if it was not debited then as it should have been, and was included in the inventory of assets at the end of the period, it resulted in showing unwarranted gains—which, if taken out of the business, would constitute withdrawal of capital and not profits.

Again, suppose there was acquired during the period a non-interest bearing note of \$1,000 with sixty days to maturity. Notes Receivable is debited \$1,000, but the discount of \$10, which should be credited to Interest to show the real value of the note, is neglected. But, at the end of the period a calculation of the discount due on all notes receivable is entered as a red ink debit to Interest. Now, in reference to the one note in question there is a discount of \$8; since there is no offsetting credit, the showing is a cost of \$8—which is absurd. Notes receivable should produce earnings, not costs. If, however, the \$10 discount due when the note was acquired had been properly credited, then with the \$8 discount due at the end of the month debited, this showing would be correct, namely earnings of \$2 for the period on the note in question.

Likewise, if the interest accrued or discount due on notes payable is disregarded when notes are assumed by the firm during the period, the results are wrong. In the first case, the interest costs are grossly overstated, and in the second earnings are shown instead of costs—which is ridiculous.

To be sure, in a business where few notes are handled, these inaccuracies are not a matter of great importance, and perhaps, since their effect is in opposite directions, they largely counterbalance each other. The latter proposition is likely to apply particularly to a business handling large amounts of all kinds of notes. Still, they are inaccuracies, and in so far as they are allowed they prevent the manager from knowing as definitely as he should where the business stands and what it is doing.

Properly to meet the criticisms that have been made, the general Interest account should be broken up into six individual accounts. Four of these are directly connected with Notes Re-

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ceivable and Notes Payable and constitute subsidiary asset and liability accounts, and two are pure proprietorship accounts, which finally are closed into Loss and Gain.

The individual accounts are (1) Interest Accrued on Notes Receivable, (2) Discount on Notes Receivable, (3) Interest Accrued on Notes Payable, (4) Discount on Notes Payable, (5) Interest Earnings, (6) Interest Costs.

(1) Interest Accrued on Notes Receivable has to do with interest bearing notes owned by the business. The face value of these notes is recorded in Notes Receivable account and the values above face should appear in Interest Accrued on Notes Receivable. The form of the account and the various entries are as follows:

INTEREST ACCRUED ON NOTES RECEIVABLE

Dr.	Cr.
1. At the beginning of the period: interest accrued on notes receivable.	1. During the period: interest payments on notes receivable.
2. During the period: interest accrued on new notes receivable acquired by the business.	
3. At the close of the period: interest accrued during the period on all notes owned by the business during that time. (The corresponding credit goes to Interest Earning.)	

This is a pure asset account. At the beginning of the period there is debited the total interest accrued at that time, an asset of the business. In all subsequent entries, the debits are increases and the credits decreases in this form of assets. There are two kinds of increases and one kind of decrease. The increases are due (1) to any interest accrued on new notes receivable acquired by the business,\* and (2) to interest accruals due to passage of time.† Any decrease is due to interest payments received.‡ At the close of the period, the balance of the account

\* Suppose a \$1,000 note with \$30 interest accrued is acquired; Notes Receivable is debited \$1,000, and Interest Accrued on Notes Receivable, \$30; both debits represent increases in asset value.

† Interest accrues day by day, i.e., the value of any note owned grows daily larger, and so might be debited daily. But that would be rather impracticable, and to save time the accruals for the entire period are debited in one entry at the close of the period.

‡ Suppose \$100 cash for interest due is received, at the moment payment is received the value of interest accrued suddenly decreases by \$100 and cash obviously increases. Consequently Interest Accrued on Notes Receivable is credited and Cash is debited. There is merely an exchange of asset values.

## *The Accounting of Interest and Discount on Notes*

is an asset, showing the value of interest accrued at that time on all notes owned by the business.||

We have seen that the interest accruals for the period are debited in one entry at the close of the period—representing asset increases for the time covered. Now, what should be the corresponding credit? Since there is no corresponding decrease in any other form of assets, obviously there is a pure gain and the credit is an increase in proprietorship. Suppose, we provide an Interest Earnings account. Then from the asset standpoint, the increase in value is debited to Interest Accrued on Notes Receivable, as has been explained, and from the proprietorship standpoint, it is credited to Interest Earnings. This account will be considered separately later in the discussion.¶

(2) The second account to be considered is Discount on Notes Receivable. It has to do with non-interest bearing notes owned by the business and like the foregoing account is subsidiary to Notes Receivable. Remember that non-interest bearing notes owned by the business are debited to Notes Receivable at their face value, which represents a future, not real, value. The difference between face and real value is recorded in Discount on Notes Receivable. The form of the account and the entries are as follows:

### DISCOUNT ON NOTES RECEIVABLE

Dr.	Cr.
1. During the period: discounts allowed on notes receivable when prepaid.	1. At the beginning of the period: discount due on notes receivable.
2. At the close of the period: all decreases in discounts on notes held during the period due to the passage of time. (The corresponding credit goes to Interest Earnings.)	2. During the period: discount due on new notes receivable acquired by the business.

In theory this must be considered a negative asset account, but it is one of a rather peculiar nature. Usually negative asset accounts deal with liabilities, but this merely represents

¶ This becomes the first entry of the next period. If the interest accruals were debited day by day as they take place, then a balance of the account could be taken at any moment and it would show the total value of interest then accrued on all notes receivable. Ideally it should be possible to take such a balance any day, but practically it is enough if it is taken at the end of every week or month.

¶ If accruals were recorded day by day as they take place, from the asset standpoint they would be debited daily to Interest Accrued on Notes Receivable, and from the proprietorship standpoint credited daily to Interest Earnings.

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an offset against overvalued positive assets carried in Notes Receivable. At the beginning of the period we have credited the discount due on all non-interest bearing notes owned by the business at that time. This credit combined with the face value debited to Notes Receivable gives the real value of the notes. Then all increases in discount due are credits and all decreases are debits. Since with the passage of time the value of the notes becomes greater and greater and the offsetting discount therefore smaller and smaller, there can be only one kind of increase, namely, through the acquisition of new non-interest bearing notes by the business.\* But, there are two kinds of decreases in *discount*, (1) those due to the prepayment of notes,† and (2) decreases due to the passage of time, *i. e.*, the notes increase in value day by day as they approach maturity and the offsetting discount value correspondingly grows smaller.‡ The balance of the account at the close of the period shows the discounts then due on all notes owned by the business.

We have seen that the decrease in discount due to the passage of time is debited. What is the corresponding credit? From another view, this decrease is really an increase in notes receivable values. Since with this increase there is no corresponding decrease in some other form of assets, the corresponding credit must be an increase in proprietorship; it is a gain realized from the notes through the passage of time. This should be credited to Interest Earnings account.||

(3) The next account that we have to consider is Interest Accrued on Notes Payable. It has to do with interest bearing notes owned by the business. It is in nature just the reverse

\* Suppose a \$1,000 note due in 60 days is acquired. Notes Receivable is debited \$1,000, and Discount on Notes Receivable credited \$10, the two combined giving the real value of the note.

† Someone pays you a \$1,000 note with still 60 days to maturity; you credit Notes Receivable \$1,000, debit Cash \$900, and debit Discount on Notes Receivable \$10, the latter being a sudden decrease in this form of negative assets. The payment cancelled not only \$1,000 in Notes Receivable but also \$10 offsetting value in Discount on Notes Receivable.

‡ These decreases in discount might be debited daily as they take place, but practically it is sufficient if they are entered in a lump sum at the close of the period.

|| Interest is the increase of value due to the passage of time; it is value created by time. An interest-bearing note, if its rate is equal to the market rate, is worth exactly its face at the moment of issue, and then becomes more and more valuable as time passes and interest accrues. A non-interest bearing note at the moment of issue is worth a sum which with regular interest (approximately) to maturity is then equal to the face value. In either case, the value of the note increases as time goes on. From the note standpoint, the increase in either case is an asset and is debited; from proprietorship standpoint it is a gain and is credited. The nature of the gain is exactly the same in either case, and should be so shown in the accounts. The gains should be credited to the Interest Earning account.

### *The Accounting of Interest and Discount on Notes*

of Interest Accrued on Notes Receivable discussed above. It is connected with Notes Payable just as the other is connected with Notes Receivable. The form and entries of the account follow:

#### INTEREST ACCRUED ON NOTES PAYABLE

Dr.	Cr.
1. During the period: interest payments made on notes.	
	1. At the beginning of the period: interest accrued on notes payable.
	2. During the period: any interest accrued on new notes payable assumed by the business.
	3. At the close of the period: interest accrued during the period on all notes owed by the business during that time. (The corresponding debit goes to Interest Costs.)

This is a pure negative asset or liability account. It records a debt owed by the business. At the beginning of the period, it has credited the total interest accrued on notes payable at that time. The face of the notes credited to Notes Payable, plus the interest accrued credited here, gives the real value of the notes owed by the business. All subsequent credits to the account are increases in interest accrued against the business, increases in liability; all the debits are decreases.

On account of previous discussions it is not worth while to analyze the individual items. At the close of the period, after all entries have been made, the balance of the account is the amount of interest then accrued against the business, or, if the accruals are credited daily as they take place, such a balance could be taken at any moment.

Observe the third credit entry, the interest accrued during the period on notes owed by the business during that time. This is an increase in liability due to the passage of time. Since there is no corresponding increase in assets, the corresponding debit must be a decrease in proprietorship. This is a cost incurred from the notes through the passage of time and should be debited to Interest Costs.

(4) The fourth account is Discounts on Notes Payable. Again in view of previous discussions it is not worth while to analyze the account extensively. It is subsidiary to Notes Pay-

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able and has to do with non-interest bearing notes owed by the business. It is the reverse of Discount on Notes Receivable. The form and entries are as follows:

**DISCOUNT ON NOTES PAYABLE**

Dr.	Cr.
1. At the beginning of the period: discount due on notes payable.	1. During the period: discounts received on notes payable when prepaid.
2. During the period: discount on new notes payable assumed by the business.	2. At the end of the period: all decreases in discounts on notes receivable owed during the period, due to the passage of time. (The corresponding debit goes to Interest Costs.)

At the beginning of the period, the debit entry is a present offset against the future values credited to Notes Payable. At the end of the period, after all entries have been made the balance is the offset which then stands against Notes Payable. Again, if the decreases in the discount were debited as they take place, such a balance could be taken at any time. But, again, periodical balances are sufficient.

With the lapse of time, the notes approach nearer to maturity, their value increases, and the discount therefore decreases. This is a credit entry which resolves itself into an increase in liability. Since there is no corresponding increase in positive assets, the corresponding debit must be a decrease in proprietorship; it is a cost of the business and should be debited to Interest Costs.\*

(5) The next two accounts are altogether different in nature from any of the foregoing. They are fundamentally proprietorship instead of asset accounts. So far, except incidentally, the increases in value due to the passage of time have been regarded primarily from the standpoint of the notes, and not from their effect upon proprietorship. Now we shall regard them, not as additions to note values owned or owed, but as earnings or costs of the business. The increases are the same as before but are viewed from a different standpoint. Consequently where before we had a debit, we now have a credit, and *vice versa*.

The first of the two accounts is Interest Earnings. The form and entries are as follows:

\* Just as all notes receivable earn interest for the business, so all notes payable, with or without interest, earn interest against the business.

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### INTEREST EARNINGS

Dr.

Cr.

At the close of the period:

1. Interest accrued during the period on all notes receivable owned by the business during that time. (Corresponding debit appears in Interest Accrued on Notes Receivable.)
2. Decreases in discounts due on notes receivable held during the period, the decreases being due to the approaching maturity of the notes. (The corresponding debit goes to Discount on Notes Receivable.)

This is a pure account, recording increases in proprietorship, and only those due to the working of time. We enter here interest earnings and nothing else. However, we record real earnings, not apparent; we include those from non-interest bearing notes receivable as well as from the interest bearing, and only the earnings that belong to the period. Necessarily the entries are all credits and are made at the close of the period, at the moment when the adjustments are made in the subsidiary notes accounts discussed above.\*

This account might well serve to bring together all interest earnings for the period, however realized. Thus it might include not only the items recorded above but also interest earnings of bonds, mortgage notes, and personal accounts. In this way it would be of considerable statistical value, showing clearly the interest earning from various sources from period to period.

Obviously the account contains credit entries only. When all interest earnings are recorded for the period, they are summarized and are then transferred and credited to Loss or Gain, General Income, Surplus, or some subsidiary proprietorship account.

(6) The last account to be considered is Interest Costs. Its form and entries are as follows:

\* However, the entries may be made daily as the earnings are actually realized, although this would be a waste of time in practice.

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INTEREST COSTS

Dr.	Cr.
<p>At the close of the period:</p> <p>1. Interest accrued during the period on all interest bearing notes owed by the business during that time. (The corresponding credit appears in Interest Accrued on Notes Payable.)</p> <p>2. Decreases in discounts due on notes owed during the period, the decreases being due to the approaching maturity of the notes. (The corresponding credit appears in Discount on Notes Payable.)</p>	

We need not discuss this account extensively. It is a pure account, dealing with decreases in proprietorship and those only that are due to the working of time. It records the interest costs exactly as the previous account records the earnings, and its purpose and serviceability are the same. It contains debit entries only, which, when summarized, are transferred to Loss and Gain or other proprietorship accounts.

So much, then, for the rather tedious analysis and presentation of the principles of interest accounting. It would seem that the analysis here presented is superior in every way to the general Interest account as taught and practised. The advantages may be briefly summarized as follows: (1) The nature of the accounts is more easily perceived and readily explained; there is less danger of theoretical confusion. (2) Each account shows clearly a definite set of facts; there is not a jumble of unrelated items; clear statistical records are kept, and the costs and earnings are definitely shown for the convenience of the business.

There is but one objection—more work is required than with the old Interest account. However, the additional work is amply justified by the clearer and more definite results. With a concern which handles a large number of notes the additional work is almost negligible. Perhaps where very few notes are handled the old accounts may well be continued. Otherwise such a course is not in accord with good modern theory or practice of accounting.

# The Journal of Accountancy

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## EDITORIAL

### The Proposed Tax on Incomes

It was to be expected that the income tax bill as submitted to the House of Representatives would meet with a considerable amount of adverse criticism. It would be difficult to imagine any bill of so far reaching a character which would not excite keen opposition, and no doubt the makers of this bill fully expected to be the butt of abuse from many different sections of the country. But looking at the matter impartially it may be admitted at once that, while the bill is far from perfect, it is so great an improvement upon previous legislation of a similar character that the warmest praise should be accorded to the legislators who are responsible for its making.

We make no argument for an income tax as such, and readily admit the force of opposition to the principle, but recognizing the certainty that such taxation will become law, it is necessary to consider its probable application.

It has been said by a well-known authority on legislation that there was deeper ignorance on the subject of income taxation than upon almost any other class of legislation which could be mentioned. It was thought apparently even by some of the mem-

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bers of the ways and means committee, that in the case of the income tax all that was necessary was to specify that incomes in excess of a certain amount should be taxed and that the method of taxation might safely be left to the officers of the treasury department. There was an astonishing lack of interest on the part of the public in the preparation of the income tax section of the Underwood tariff bill. Every business man and a large percentage of investors were so intimately interested in the provisions of the section of the bill dealing with the customs tariff upon imports that they entirely overlooked or deemed of no particular moment the section which embodies provisions for the taxation of income. Fortunately, however, the drafting of this bill was left in capable hands and the subcommittee appointed to this particular duty was ready to listen to expert advice, and has honestly endeavored to introduce into the bill such phraseology as will ensure a workable business-like act.

Times out of number mention has been made of the impracticable and futile provisions of the corporation tax law, and accountants generally have been kept informed of the campaign undertaken by the American Association to secure an amendment of that law which would permit corporations to adopt the fiscal rather than the calendar year. Now, however, this amendment has been dropped because in the passage of the income tax bill—which is comparatively certain—the corporation tax law will be repealed and its absurd provisions can work no further injury.

It would be foolish to pretend that the Underwood tariff bill in so far as it concerns incomes is ideally perfect. Indeed, in one particular at least, it is far from being what accountants and business people would desire to have it. This is in the regulations relative to the reports of individual income. In the case of corporations, joint stock companies and insurance companies the bill provides that the fiscal year shall be permitted to be the basis of inventory and report but this permission is not extended to individuals. In support of this differentiation the framers of the bill maintain that by collection at the source of income the amount of tax to be collected directly from the individual is comparatively small and therefore the right to use the fiscal year is unimportant, but it must be remembered that the law makes no levy upon partnerships and therefore in or-

## *Editorial*

der to reach the income of partnerships the tax will be collected from the income of the several partners. Such income must be based upon the revenues of the partnership or firm, and it requires no argument to prove that a vast number of unincorporated firms find it almost compulsory to adopt a fiscal period not coincident with the calendar year.

But, while we may regret the failure of the legislators in Washington to extend the fiscal privilege so far as we wish, we may feel profoundly thankful that the utterly ridiculous regulation whereby the calendar year was made obligatory in regard to corporation inventories and reports has been avoided in the preparation of this superseding bill.

In the original draft there were certain ambiguities which it was felt might render difficult the administration of the law, and in response to suggestions a few changes have been made. It is apparently the desire of members of both houses that the legislation to be enacted shall be of the kind which for lack of a better name may be called "business like."

It is not our purpose to deal specifically with the provisions of the bill except in one or two particulars.

A good deal of opposition to the bill has been made on the score that holders of guaranteed bonds would not be reached by such a law inasmuch as the companies issuing those bonds have guaranteed the holders against impairment of capital or interest, and the case of Mr. Andrew Carnegie has been frequently cited. It has been pointed out that if the United States Steel Corporation is compelled to pay the income tax on the Carnegie bonds such payment must come out of the pockets of the common stockholder. But frankly and looking at the matter without partiality, is the government or is the nation responsible for the agreements entered into by a company with its creditors? Would it be proper and just so to frame legislation that the rights of common stockholders jeopardized by the action of their directorate should be protected at the expense of a sacrifice of principle? The theory of taxation at the source is one that is generally accepted as the best, and it would seem utterly unreasonable to suppose that this should not be adopted because by its adoption the provisions of a guaranteed bond issue would bear hardly upon those responsible for such provisions.

It should be remembered also that under the provisions of

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the bill the additional tax on amounts of income over \$20,000 is collected from the recipient of the income, and is not collected at the source. Therefore, although it may be decided by the courts that the Steel Corporation must pay the one per cent on the Carnegie bonds, that does not indicate that Mr. Carnegie himself will escape the payment of the entire amount of additional tax.

It has been argued that the exemption of \$4,000 in the case of individuals is far too high and savors too strongly of class legislation. We believe that the exemption might be considerably decreased with advantage, and it seems to us that it might be put as low as \$1,000 per annum, but even if this were done the income tax law would still be class legislation. Practical taxation of incomes must always be legislation against a class because it is universally recognized that the idea of collection of an income tax from all incomes is entirely beyond possibility. In theory it might be well enough to propose a universal tax on income. In practice such a tax could never be collected. Therefore the revival of the old objection on the subject of class legislation seems to us utterly beside the point.

Possibly before this issue of THE JOURNAL OF ACCOUNTANCY will have reached its readers the tariff bill will have passed the House of Representatives, and it may be that changes not foreseen at present will have been introduced, but at the time of writing the bill, in so far as it concerns taxation of incomes, is a distinct improvement upon any of its predecessors of similar intent. And the fact that expert advice has been accepted in this case leads to a fairly confident hope that in future legislation having a technical bearing will be prepared with due attention to technical requirements.

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### For the Good of the Profession

In the April number of THE JOURNAL appeared a letter from a correspondent, in which THE JOURNAL was charged with asking support "for the good of the profession." To this THE JOURNAL must plead guilty, but in extenuation of the offense it may be said that the request which distressed our correspondent was not for

## *Editorial*

financial support, but for contributions of articles and help in the way of suggestions and comment.

Phrases are sometimes so hackneyed that they do not carry their full weight of meaning. "For the good of the profession" is a legitimate appeal, but it is not probable that one accountant in a hundred recognizes just how much it does mean, or in other words, how much more powerful an agent for the good of accountancy THE JOURNAL could be made if it had the hearty support and cooperation of its subscribers.

The accounting conditions of this country are in a state of change. Requirements are changing; methods are changing; the ends to be attained are changing. Accountants must keep up with these changing conditions. But how can this be done?

Among the subscribers and readers of THE JOURNAL are found the most active and progressive accountants of the country. These men are in touch with actual accounting conditions, and every one of them is meeting and solving problems which are new—and solving them at a cost of much time, trouble and thought. The same difficulties are coming up over and over again in the various parts of the country, and being solved each time with the same expenditure of time, trouble and thought.

Suppose that every progressive accountant of the country when he encountered a new and difficult problem reported it and his solution of it to THE JOURNAL. Suppose that those who considered the solution imperfect, inadequate, or not the best, sent in to THE JOURNAL their own views as to the proper solution. And suppose every active accountant of the country sent THE JOURNAL full notice of accounting legislation, accounting events, or any other accounting information of real interest to the profession. Suppose, still further, that the best qualified accountants of the country contributed articles on the more difficult problems and procedure of the calling as the need arose.

If this were done, would not THE JOURNAL be a real clearing house of accounting information? Would it not be the most potent, the most effective and the most influential single agency for the advancement of the profession? Would there be one live accountant in the country who did not take THE JOURNAL?

Why, on the other hand, may it be asked, is this not so? Why is it that so often the accountant working out some difficult problem for himself, jealously guards his secret instead of

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giving it to the profession, in so far as professional propriety will reasonably permit? Why is it that out of the many hundreds of possible contributors to THE JOURNAL, its actual contributors are so few?

In the really progressive professions and callings an unstinted contribution to the common fund of knowledge obtains. If a doctor makes an important discovery, performs a new operation, or performs an old one in a new way, he hastens to announce it to the world through his journal. If an engineer successfully solves some new and intricate problem of construction, or discovers a short cut or a better method, he promptly proclaims it to the engineering world through the columns of his journal.

This spirit is found in every other active trade and profession, with perhaps the single exception of the law, and here there are no such changing conditions as confront accountancy. But even in the legal profession we find a rich literature in which every phase of law is treated voluminously. There is no attempt and, in fact, no possibility of concealing for private good the knowledge which is the capital of the calling.

It is time for *Accountancy* to wake up. The calling is conspicuously lacking in the shoulder touch, in the *esprit de corps* which makes a profession and makes for the good of its membership. If accountancy is to be a real profession, its professional obligations cannot be evaded or avoided. Every member must do his part "for the good of the profession." In helping others he will help himself.

## Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

### PROBLEM No. 17 (DEMONSTRATION)

The Kent Wire Screen Company having acquired all of the capital stock of the Derby Wire Netting Company, it is proposed to merge the latter with the former as of July 1, 1912.

The trial balances June 30, 1912, of the respective companies after closing, are as follows:

#### KENT WIRE SCREEN COMPANY

Land and buildings, \$525,750; equipment, \$85,729.43; motor trucks, \$8,780.25; furniture and fixtures, \$6,943.27; Derby Wire Netting Company, capital stock, par value \$100,000, cost \$97,713.50; materials and supplies, \$18,379.51; goods in process, \$16,591.46; finished goods, \$23,468.46; cash, \$12,640.31; accounts receivable, \$54,345.26; notes receivable and interest, \$10,132.75; sinking fund, \$45,376.59; deferred charges to expense, \$1,537.82; first mortgage 6% gold bonds payable, due 1927, \$250,000; taxes accrued, \$5,250; salaries and wages accrued, \$3,178.29; accounts payable, \$85,216.04; due to Derby Wire Netting Company, \$536.12; notes payable and interest, \$41,273.25; interest accrued on bonds payable, \$2,500; reserve for depreciation of plant and equipment, \$69,434.91; preferred capital stock outstanding, \$250,000; common capital stock outstanding, \$150,000; profit and loss surplus, \$50,000.

#### DERBY WIRE NETTING COMPANY

Land and buildings, \$240,327.92; machinery and tools, \$48,934.27; horses, wagons, and harness, \$6,387.35; furniture and fixtures, \$8,500; capital stock of the Improved Screen Door Company, par \$20,000, cost \$23,457.86; patents, \$10,000; raw materials, \$23,721.89; goods in process, \$32,568.34; finished goods, \$18,478.27; cash, \$14,686.43; accounts receivable, \$57,395.05; due from the Kent Wire Screen Company, \$536.12;

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notes receivable and interest, \$8,037.50; sinking fund, \$30,483.14; consignment, \$1,000; deferred charges to operations, \$1,250; first mortgage 5% gold bonds payable, due 1930, \$100,000; taxes accrued, \$2,787; salaries and wages accrued, \$5,843.62; accounts payable, \$114,527.16; due the Improved Screen Door Company, \$10,000; notes payable and interest, \$51,673.53; interest accrued on first mortgage bonds, \$833.33; reserve for sinking fund, \$30,483.14; reserve for depreciation of plant and equipment, \$37,329.52; common capital stock outstanding, \$100,000; profit and loss surplus, \$72,286.84.

From the foregoing submit:

- (a) The entries on the books of The Kent Wire Screen Company necessary to effect the merger.
  - (b) The necessary entries on the books of the Derby Wire Netting Company.
  - (c) Balance sheet of The Kent Wire Screen Company after the merger.
- 

**SOLUTION TO PROBLEM No. 17**

A consolidated trial balance of the books of the Kent Wire Screen Company and the Derby Wire Netting Company serves the dual purpose of showing the situation with regard to the individual companies and the effect of the consolidation. It is therefore presented before beginning a discussion of the various requirements of the problem, and is as follows:

	Consolidated Debits	Trial Balance June 30, 1912	Elimina- tions	Trial Balance June 30, 1912	Kent Wire Screen Co.	Derby Wire Net- ting Co.
Land and buildings .....	\$ 766,077.92			\$525,750.00	\$240,327.92	
Machinery, tools and equipment .....	134,663.70			85,729.43	48,934.27	
Horses, wagons, harness and motor trucks .....	15,167.60			8,780.25	6,387.35	
Furniture and fixtures .....	15,443.27			6,943.27	8,500.00	
Derby Wire Netting Co., stock, \$100,000 par .....		\$ 97,713.50		97,713.50		
Materials and supplies .....	42,101.40			18,379.51	23,721.89	
Goods in process .....	49,159.80			16,591.46	32,568.34	
Finished goods .....	41,946.73			23,468.46	18,478.27	
Cash .....	27,326.74			12,640.31	14,686.43	

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Accounts receivable .....	111,740.31	54,345.26	57,395.05
Notes receivable and interest	18,170.25	10,132.75	8,037.50
Sinking funds .....	75,859.73	45,376.59	30,483.14
Deferred charges to expense	2,787.82	1,537.82	1,250.00
The Improved Screen Door Co., \$20,000 par .....	23,457.86		23,457.86
Patents .....	10,000.00		10,000.00
Kent Wire Screen Co. ....		536.12	536.12
Consignment .....	1,000.00		1,000.00
Total debits .....	<u>\$1,334,903.13</u>	<u>\$98,249.62</u>	<u>\$907,388.61</u>
			<u>\$525,764.14</u>

Credits

First mortgage 6% bonds, due 1927 .....	\$ 250,000.00		\$250,000.00
Taxes accrued .....	8,037.00	5,250.00	\$ 2,787.00
Salaries and wages accrued.	9,021.91	3,178.29	5,843.62
Accounts payable .....	199,743.20	85,216.04	114,527.16
Due Derby Wire Netting Co.		\$ 536.12	536.12
Notes payable and interest.	92,946.78	41,273.25	51,673.53
Interest accrued on bonds payable .....	3,333.33	2,500.00	833.33
Reserve for depreciation plant and equipment ....	106,764.43	69,434.91	37,329.52
Preferred capital stock out- standing .....	250,000.00	250,000.00	
Common capital stock out- standing .....	152,286.50	97,713.50	150,000.00
Profit and loss surplus.....	122,286.84	50,000.00	72,286.84
First mortgage 5% bonds, due 1930 .....	100,000.00		100,000.00
The Improved Screen Door Co. ....	10,000.00		10,000.00
Reserve for sinking fund..	30,483.14		30,483.14
Total credits .....	<u>\$1,334,903.13</u>	<u>\$98,249.62</u>	<u>\$907,388.61</u>
			<u>\$525,764.14</u>

The object of this problem is to show the effect of a merger on the accounts of the companies involved. In New York State, "Any corporation lawfully owning all of the stock of any other corporation organized for and engaged in business similar or incidental to that of the possessor corporation may merge such other corporation with it and be possessed of all estate, property, rights, privileges and franchises of such other corporation." A consolidation differs from a merger in that "any two or more corporations organized for the purpose of carrying on any kind of business of the same or similar nature which a corporation organized under the business corporations law might carry on, may consolidate into a single corporation." The essential difference between the two is that in the case of merger all the stock of the subsidiary or adjunct company must be owned by

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the parent company, whereas in consolidation no cross-ownership of stock is necessary.

The entire capital stock of the Derby Wire Netting Company was owned by the Kent Wire Screen Company and carried on the books as an asset. The ownership of the capital stock made the merger possible legally and the merging of the accounts followed. It was not consistent for the Kent Wire Screen Company to take up the assets and liabilities of the Derby Wire Netting Company and carry the stock of the latter as an asset.

No more was it consistent to consider accounts between companies as assets and liabilities of the respective companies. Hence the necessity for eliminating in the consolidated trial balance the accounts between companies and the capital stock.

The capital stock of the Derby Wire Netting Company in the amount of \$100,000 par was, it will be noted, carried on the books of the Kent Wire Screen Company at cost, namely, \$97,713.50. This latter amount is therefore the amount at which the elimination is shown both on the debit and credit sides of the consolidated trial balance. Since the common capital stock of the Derby Wire Netting Company outstanding is \$100,000, and the cost to the Kent Wire Screen Company was but \$97,713.50, there appears in the consolidated trial balance, opposite the item common capital stock outstanding, the amount of \$152,286.50. of which \$2,286.50 is the excess over \$150,000 of the common capital stock of the Kent Wire Screen Company. This amount of \$2,286.50 will be recognized as the difference between \$100,000 and \$97,713.50. This difference from the point of view of the Kent Wire Screen Company after the merger becomes in effect surplus, and in setting up the balance sheet after the merger should be treated as such.

Previous to the merger, the Kent Wire Screen Company owed the Derby Wire Netting Company \$536.12 on open account. In merging the two companies this amount is treated as an elimination since in the very nature of things a concern may not owe itself money.

The matter of offsets should, in case of mergers and consolidations, receive careful attention. It often becomes necessary in practice to spend considerable time in reconciling accounts between or among companies in order that when the accounts of the companies are put together intercompany trans-

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actions may be in agreement. This is especially true of capital stock, bonds, accounts receivable, and sometimes interest, notes receivable and interest, advances, consignments, and other items of a similar nature to the ones mentioned above.

From the consolidated trial balance there may now be prepared the entries on the books of the Kent Wire Screen Company necessary to show the effect of the merger. It is not thought that any additional light will be thrown on the solution of the problem by setting forth the assets and liabilities in detail since they are shown very clearly in the consolidated trial balance. They have therefore, in the entry which follows, been set up under the general captions of sundry assets and of sundry liabilities.

Sundry assets .....	\$525,228.02
Accounts receivable (account of Kent W. S. Co.) ...	536.12
To Sundry liabilities .....	\$353,477.30
Derby W. N. Co., outstanding capital stock .....	100,000.00
Profit and loss surplus .....	72,286.84
To place on the books of the Kent Wire Screen Co. the assets, liabilities, capital and surplus of the Derby Wire Netting Co. in accordance with the terms of merger of the two companies as of July 1, 1912.	
Accounts payable (Derby W. N. Co.) .....	536.12
To accounts receivable (Kent W. S. Co.)...	536.12
To offset accounts between companies after merger.	
Derby W. N. Co., outstanding capital stock .....	100,000.00
To Derby W. N. Co., stock (asset) .....	97,713.50
Profit and loss surplus .....	2,286.50
To offset the accounts between companies relating to capital stock and take up as surplus on the books of the Kent W. S. Co., the difference between the par and cost of Derby W. N. Co. capital stock.	

The closing entries on the books of the Derby Wire Netting Company are simple in the extreme. They consist merely in setting up an account with the Kent Wire Screen Company and closing out to this account all other accounts on the books. As in the previous case, it is not thought necessary to itemize the assets and liabilities. The entries are as follows:

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The Kent Wire Screen Co. ....	\$525,764.14
To sundry assets .....	\$525,764.14
To close out all assets to the Kent W. S. Company in accordance with the terms of merger of July 1, 1912.	
Sundry liabilities .....	353,477.30
Capital stock .....	100,000.00
Profit and loss surplus .....	72,286.84
To Kent W. S. Co. ....	525,764.14
To close out liabilities, capital stock and sur- plus to the Kent W. S. Co. in accordance with the terms of merger of July 1, 1912.	

The above entries complete the requirements of the problem except as to the balance sheet of the Kent Wire Screen Company after the merger which appears below.

**THE KENT WIRE SCREEN COMPANY**

**BALANCE SHEET—JUNE 30, 1912**

*Assets*

Land and buildings .....	\$ 766,077.92
Machinery, tools and equipment .....	134,663.70
Horses, wagons, harness and motor trucks .....	15,167.60
Furniture and fixtures .....	15,443.27
Patents .....	10,000.00
Securities owned .....	23,457.86
Working and trading assets:	
Materials and supplies .....	\$ 42,101.40
Goods in process .....	49,159.80
Finished goods .....	41,946.73
Total working and trading assets .....	133,207.93
Current assets:	
Cash .....	\$ 27,326.74
Accounts receivable .....	111,740.31
Notes receivable and interest .....	18,170.25
Total current assets .....	157,237.30
Sinking funds .....	75,859.73
Deferred charges to expense .....	2,787.82
Consignments .....	1,000.00
Total assets .....	\$1,334,903.13

*Liabilities and Capital*

Capital stock outstanding:	
Preferred .....	\$250,000.00
Common .....	150,000.00
Total capital stock outstanding.....	\$ 400,000.00

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Bonds outstanding:	
Kent Wire Screen Co. 6's due 1927.....	\$250,000.00
Derby Wire Netting Co. 5's due 1930 .....	<u>100,000.00</u>
Total bonds outstanding .....	350,000.00
Current liabilities:	
Taxes accrued .....	\$ 8,037.00
Salaries and wages accrued .....	9,021.91
Accounts payable .....	<u>200,743.20</u>
Notes payable and interest .....	92,946.78
Int. accrued on bonds payable .....	<u>3,333.33</u>
Total current liabilities .....	323,082.22
Reserves:	
Depreciation of plant and equipment .....	\$106,764.43
Sinking fund .....	<u>30,483.14</u>
Total reserves .....	137,247.57
Profit and loss surplus .....	<u>124,573.34</u>
Total liabilities and capital .....	<u><u>\$1,334,903.13</u></u>

PROBLEM No. 17-A (PRACTICE)

The following items appear on the balance sheet of the American Pin Company, June 30, 1912: Land, buildings, equipment, etc., \$335,000; capital stock of the Bronx Pin Ticket Company, par, \$50,000; cost, \$57,400; patents, \$15,000; working and trading assets, \$37,500; cash, \$10,000; accounts receivable, \$32,000; due from Bronx Pin Ticket Company, \$375.82; deferred assets, \$1,500; first mortgage 6% gold bonds payable, due 1922, \$100,000; taxes accrued, \$3,250; salaries and wages accrued, \$4,327.82; accounts payable, \$123,749.83; notes payable and interest, \$80,125; interest accrued on first mortgage bonds payable, \$2,500; reserve for depreciation of buildings and equipment, \$35,000; preferred capital stock outstanding, \$75,000; common capital stock outstanding, \$50,000; profit and loss surplus, \$14,823.17.

The American Pin Company having acquired all the capital stock of the Bronx Pin Ticket Company, the balance sheet of which appears below, it is proposed to merge the two companies as of July 1, 1912.

THE BRONX PIN TICKET CO.

Assets—land, buildings, and equipment, etc., \$260,000; capital stock of the Blauser Pin Tray Company carried at par, \$35,000;

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patents, working, and trading assets, \$32,625; cash, \$10,365.27; accounts receivable, \$37,943.86; sinking fund, \$3,236.92; deferred charges to expense, \$1,200. Liabilities and capital—first mortgage 5% gold bonds payable, due 1925, \$50,000; taxes accrued, \$2,750; salaries and wages accrued, \$3,147.83; due to creditors, \$144,720.30; due to American Pin Company, \$375.82; notes payable and interest, \$31,372.53; interest accrued on first mortgage bonds payable, \$1,250; reserve for depreciation of plant and equipment, \$27,500; common capital stock outstanding, \$50,000; profit and loss surplus, \$69,254.57.

Prepare:

- (a) The entries on the books of the American Pin Company.
- (b) The entries on the books of the Bronx Pin Ticket Company.
- (c) Balance sheet of the American Pin Company after the merger.

## Meeting of the Board of Trustees

The regular semi-annual meeting of the Board of Trustees of the American Association of Public Accountants was held at the Lawyers' Club, in the city of New York, on Monday, April 14th, 1913.

There were present:

President, Robert H. Montgomery.

Treasurer, James Whitaker Fernley.

Vice-Presidents: Arthur Young (Illinois), Herbert M. Temple (Minnesota), Clarkson E. Lord (New Jersey), William F. Weiss (New York), Charles S. Jenckes (Rhode Island), George Mahon (Virginia).

Trustees: Hamilton S. Corwin, J. S. M. Goodloe, Elijah W. Sells, J. E. Sterrett, E. L. Suffern.

The Secretary, A. P. Richardson.

J. J. McKnight, representing the president of the Ohio Society, was accorded the privilege of the floor.

The minutes of the preceding meeting as printed and distributed to trustees were approved.

The report of the treasurer showed total receipts amounting to \$9,229.02 and disbursements \$5,706.88. Balance on hand, \$3,522.14.

The report of the secretary was received and filed. In this report the secretary discussed the work of his office at considerable length. On the subject of federal legislation the report reviewed the work which has been done in Washington in regard to the introduction of the fiscal in preference to the calendar year in the case of corporation reports, and stated that there was a gratifying change in regard to the reception accorded to constructive criticism.

Under the caption *The Kentucky Situation*, a brief *résumé* of the efforts to effect harmony was given, and the prospects for the new society were discussed.

The secretary reported a successful tour to the societies in the south, west and northwest, and expressed the opinion that a considerable amount of benefit had been derived from the effort to establish closer relationships between the national and state organizations. In nearly every place visited there was a prompt and enthusiastic response to the plea for co-operation as soon as the work undertaken by the national association was described.

The report of the executive committee reviewed the work done in the six months. Two mail votes had been taken. One in regard to the admittance of the Kentucky Society of Public Accountants, and one in regard to the publication of C. P. A. questions. In both cases the vote was affirmative. The report also referred to the appointment of a sub-committee to investigate the practicability of holding the 1914 convention in Washington, D. C. The sense of the sub-committee was that it would be advisable to hold a convention without depending upon the invitation of a state society, and Washington seemed to be a satisfactory

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place for such convention. The report recommended that the question of holding the 1914 convention in Washington be seriously considered by the association.

This suggestion was approved by the board of trustees and referred to the 1913 meeting in Boston.

The president stated that the committee on accounting terminology had not yet completed its report, but that progress was being made.

In lieu of a report from the committee on annual meeting, a tentative programme was submitted and a vote of thanks was extended to the annual meeting committee for the work which had been done in preparation for the convention.

The report of the committee on federal legislation dealt with three activities which were undertaken in the half year. The first of these was the introduction of the fiscal year in corporation reports to the government; the second, a suggestion for clearer language in legislation in regard to accounting matters, and the third the endeavor to induce members of the association to become affiliated with commercial clubs and other business organizations. The report stated that several hearings had been attended in Washington and that there was every indication that a considerable amount of success had attended the efforts made. The campaign for betterment of legislation must be continued. The idea of affiliation with business organizations was being well received.

The report of the committee on JOURNAL showed progress during the half-year and again drew attention to the need for articles from members of the association. Subscriptions and advertising were showing an increase.

The report of the membership committee was read and the applications favorably mentioned were approved for admittance.

The chairman of the committee on state legislation, Mr. J. S. M. Goodloe, reported orally upon the work done by his committee through the past six months, particularly in regard to legislation in Delaware, Tennessee, Texas, Kansas, Kentucky, Alabama and Oregon, and also in regard to suggested amendments to legislation in Minnesota, Ohio and Washington. The committee was endeavoring to prevent the passage of unsatisfactory bills or amendments.

Upon motion, duly carried, the committee was requested to prepare a digest of provisions which should be inserted in every C. P. A. bill—this to be presented to the association and printed in the year book.

The report of the special committee on credit information dealt with the campaign which had been begun to obtain the views of bankers in regard to the certification of borrowers' statements. The report stated that the replies had been very favorable and a digest of them would be prepared and circulated among bankers and note brokers and among some of the larger borrowers.

The president referred to the question of state legislation in regard to reports of corporations and read letters in reply to a circular which had been sent out urging state societies to take action to securing the

## *Meeting of the Board of Trustees*

introduction of the fiscal year. Upon motion, duly seconded; the question was referred to the committee on state legislation.

### **TRIAL BOARD**

The board of trustees then adjourned and convened as a trial board to hear cause why the Kentucky Association of Public Accountants should not be dropped from membership as provided in article VII, section 1 of the by-laws of the association. By unanimous vote of the members of the trial board the Kentucky Association of Public Accountants was expelled from membership in the American Association of Public Accountants.

Upon resumption as the board of trustees the secretary reported the following deaths:

J. B. Simpson, president of the Alabama Society; Arthur J. Besson, New Jersey; J. W. Barber, California; and F. C. Tufts, of Massachusetts.

It was resolved that minutes should be made expressing the regret of the board of trustees at the deaths of its member, Mr. J. B. Simpson, of Alabama, and its former member, Mr. F. C. Tufts—expressions of sympathy to be sent to the members of state societies with which Mr. Simpson and Mr. Tufts had been associated.

At the conclusion of the meeting, the president of the New York State Society invited the members of the board of trustees to attend a meeting of the New York State Society to be held that evening in New York.

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The following were elected members of the American Association of Public Accountants:

*Georgia Society of Certified Public Accountants:*

Fellow:

Charles Neville, C.P.A.

*Illinois Society of Certified Public Accountants:*

Fellow:

Artemas R. Hopkins, C.P.A. (subject to consent of the New Jersey Society).

*Kentucky Society of Public Accountants:*

Fellows:

W. S. Parker  
Thomas E. Turner  
Overton S. Meldrum  
Enos Spencer  
Charles G. Harris  
James S. Escott  
A. H. Ummethun  
Homer F. Harris  
T. A. Pedley

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L. Comingor

Associates:

J. C. Mahon

Frederick L. Brigham

Arthur J. Wrege

Edward F. Stoll

Arthur B. Zubrod

William J. Ryans

*Certified Public Accountants of Massachusetts, Incorporated:*

Fellows:

Frederick Stewart, C.P.A.

Hazen P. Philbrick, C.P.A.

J. Chester Crandell, C.P.A.

Associate:

Ralph K. Hyde, C.P.A.

*Michigan Association of Certified Public Accountants:*

Fellows:

William Leslie, C.P.A.

David Smith, C.P.A.

A. Van Oss, C.P.A. (subject to consent of New York State Society)

*Missouri Society of Certified Public Accountants:*

Fellow:

James B. Campbell, C.P.A. (Minn.) (subject to consent of Minnesota Society)

*New York State Society of Certified Public Accountants:*

Fellows:

Paul E. Bacas, C.P.A.

S. G. H. Fitch, C.P.A.

Harold D. Greeley, C.P.A.

Joseph J. Klein, C.P.A.

John H. Koch, C.P.A.

Paul L. Loewenwarter, C.P.A.

Marcus A. Muller, C.P.A.

Francis D. Neville, C.P.A.

A. T. Spratlin, C.P.A.

W. J. Struss, C.P.A.

DeKay Winans, C.P.A.

Albert F. Young, Jr., C.P.A.

E. B. Wade, C.P.A.

*Rhode Island Society of Certified Public Accountants:*

Fellow:

William B. Sherman, C.P.A.

*Tennessee Society of Public Accountants:*

Fellows:

Ira P. Jones

William C. Slayden

J. Roy Curtis

*Meeting of the Board of Trustees*

Fred E. Ivy  
Robert Hall Jones  
Robert L. Bright  
M. Orion Carter  
John G. Parks  
Henry E. N. F. Mason  
Allen B. Fisher  
George Milton Clark

Associate:

J. Douglas Lord

*Wisconsin Association of Public Accountants:*

Fellows:

Wesley T. Cole.  
George P. Johnson

*Washington Society of Certified Public Accountants:*

Fellow:

Herbert E. Post, C.P.A.

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**North Carolina State Board of Accountancy**

The State Board of Accountancy provided for in the act passed during the last session of the legislature of North Carolina consists of four members, three of whom are accountants and one an attorney. The Board met on April 19, and elected the following officers:

President—Moreland R. Lynch, High Point.

Treasurer—G. G. Scott, Charlotte.

Secretary—J. D. Hightower, Greensboro.

The fourth member of the board is David Stern of Greensboro.

The board will hold its first examination on August 25, at Wilmington, North Carolina.

# Pennsylvania C. P. A. Examinations of November, 1912

(Continued)

## COMMERCIAL LAW

ANSWERS BY WALTER D. STEWART, LL.B.

*Member of the Philadelphia Bar*

### QUESTION 1

Samuel Mason died leaving a will in which he appointed Robert Goodman his trustee, giving him full power in his discretion to make sales of any stocks, bonds or securities forming part of his estate. Goodman was seized with a lingering illness which largely incapacitated him from actively attending to the duties of the trust and he accordingly gave a power of attorney to one William Sampson, duly executing it as trustee under the will of Samuel Mason, and authorizing Sampson to sell and dispose of the securities as his attorney. Sampson, acting in good faith, sold some stock at a price far below its real value. Goodman died, a new trustee was appointed, and he brought suit to recover from the purchaser the stock which had been sold. Can he do so, and if so why?

### ANSWER TO QUESTION 1

There are but two possible reasons why the stock can be recovered from the purchaser: (1) That it was a bad bargain, and (2) that Goodman, the original trustee, had no power to delegate his authority to Sampson. The first reason has no foundation in law, as the parties were dealing at arm's length, and both were entitled to the benefit of the best bargain that they could drive. As to the second reason, it appears that the delegation of authority to sell stock was proper for the reason that the trustee was, in the words of the trust, given "full power in his discretion to make sale, etc." It was, therefore, an exercise of his discretion to delegate the power of sale to another. The acts of the agent were binding on the trustee, and the sale which the agent made was, therefore, good and complete. If any one could be held responsible for the loss occasioned by the sale of the stock it would possibly be Mason's estate or Sampson, but as this is a matter outside of the scope of the case stated, there is no need to go into it.

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### QUESTION 2

Robert Filmore under a written agreement leased unto James Thompson a house in the city of Philadelphia for the term of five years at the

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rent of \$40 per month. Property was enhanced a good deal in value at the end of two years and the landlord suggested to his tenant that it would be only the fair thing if he should increase the rent to \$50 a month. To this the tenant agreed, writing a letter in which he said, "I agree hereafter to pay the sum of \$50 per month for the property rented by me from you." Notwithstanding this letter, however, the tenant refused to pay more than \$40 a month and the landlord brought suit to recover the agreed amount of \$50. Can he recover? State the reasons for your answer.

**ANSWER TO QUESTION 2**

A contract in order to be enforceable must be supported by a consideration, which means that there must be some benefit to be derived by the party making the promise in return for the promise made. In the case stated, the parties have already entered into a valid contract by which one has agreed to lease certain premises to the other for the term of five years at certain rent. As long as the lessee performs all the covenants contained in the lease he is entitled to stay on the premises for the full five years. Any agreement on the part of the lessee to pay an increased rent would result in any benefit to the lessee, and is, therefore, void and not enforceable, and the landlord should not be permitted to recover the amount of the increased rent. (See Taylor vs. Winterd, 6 Phila. Reports, 126.)

**QUESTION 3**

Thomas Brown died leaving a will in which after one or two other provisions he provided as follows: "All the rest of my estate I give unto my friend Edward Simpson to hold the same in trust and collect the income and pay the same unto my wife for her life, and at her death to deliver the principal to my children in equal shares." In his estate were 100 shares of stock of the Pennsylvania Railroad Company. The trustee, desiring to take advantage of a rise in the market price of the stock, sold the same through his brokers and endorsed the certificate, which stood in the name of Thomas Brown, as trustee, and the broker presented it to the railroad company for transfer. The railroad company refused to make the transfer. Was its position right or wrong, and what remedy had the trustee against the company?

**ANSWER TO QUESTION 3**

A corporation or a transfer agent for a corporation is under no obligation to permit of a transfer of stock if such acquiescence would expose the agent or his principal to a successful claim by any one for the replacement of the stock or for its value. The corporation or the transfer agent is in a sense the custodian of the rights of stock owners.

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The purchaser of stock does not receive the certificate of his vendor, but a new one made out in his own name and reciting nothing contained in the former. He is, therefore, protected in the enjoyment of his purchase, even though there was no right to make the transfer to him. For this reason an unauthorized transfer is a wrong done to the owners of stock, for which not only the person who makes it, but anyone knowingly assisting in the wrong, is responsible. The corporation—or its transfer agent—has in its keeping the primary evidence of title to the stock, and is justly held to proper diligence and care in its preservation. From this it results that it may rightfully demand evidence of authority to make a transfer before it permits the transfer to be made. Its own safety requires that it be satisfied of the right of the person proposing to make a transfer to do what he proposes. Generally, sufficient evidence of such right is found in the possession of legal title to the stock, but in equity, whatever puts a party upon inquiry is notice of what inquiry must reveal.

Where a party dies intestate, the administrator or executor of his estate is entitled to sell the stock of the estate without showing any other authority than that he has been appointed administrator or executor. A trustee of an insolvent estate would seem to stand on the same footing. His primary duty is administration; that is, to dispose of the personal property and therewith pay the debts of the deceased insolvent and make distribution among the next of kin or legatees. There is, however, a marked difference between the powers of an administrator or executor and those of an ordinary trustee. The common duty of the latter is not administration or sale, but custody and management. The power of sale is not a necessary incident to the trust. If in truth he has not such power, the corporation or transfer agent, by accepting his certificate and issuing others in lieu thereof to his transferee, is assisting him to destroy the rights of the beneficiary in the trust. But it has been held that the mere designation of the stockholder as trustee, without a specification of the trust or names of the beneficiary is not such notice to the transfer agents as to make it their duty to look beyond the legal title, for it did not point to any sources of information. It, therefore, seems that the railroad company has no right to refuse to make the transfer, and the trustee has two remedies: (1) By a bill in equity against the railroad company to compel them to transfer the stock, and (2) An action against them to recover whatever actual damage may have been suffered by the refusal to transfer the stock when the same was requested. Such actual damage would arise in the event of a decline in the value of the stock.

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QUESTION 4

Henry Evans, desiring to purchase a team of horses, requested a friend of his named Robert Thompson to procure a team for him. Thompson went to Frederick Wilson, the owner of some horses, and, desiring to make some profit in the transaction himself, purchased a team for the

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sum of \$800, which he agreed to pay therefor. The transaction was wholly in Thompson's name and Wilson sold the horses to him and knew nothing whatever about Evans. Thompson was to pay for the horses in thirty days. They were delivered to him and he in turn delivered them to Evans for the price of \$1,000, which Evans paid him therefor. Thompson failed to pay Wilson, however, and Wilson then brought suit against Evans for the \$800, the price at which he sold them to Thompson. Can he recover? State the reasons for your answer.

**ANSWER TO QUESTION 4**

There is no privity of contract between Wilson and Evans. The transaction between Wilson and Thompson was entirely separate from the transaction between Thompson and Evans; and although Evans authorized Thompson to procure a team for him, yet when Thompson procured that team he did so as an entirely independent purchaser. Wilson cannot, therefore, recover from Evans.

**QUESTION 5**

Having come to an adjustment of certain accounts between them, Howard Pine gave unto Samuel Barnes his note for \$577.19. The time of the settlement was January, 1912. After the note had been signed by Pine and delivered to Barnes and the parties had separated, Barnes observed that the note was written upon an old printed form of a note on which there had been printed as part of the date, the figures "190." In filling in the note, the figure "2" had been added so that the note apparently read "January, 1902." To correct this, Barnes took his pen and made a figure one through the cypher. What effect had this upon the note if any?

**ANSWER TO QUESTION 5**

The Negotiable Instruments Act of May 16, 1901, provides that where a negotiable instrument is materially altered without the assent of all parties liable thereon, it is avoided, except as against a party who has himself made, authorized or assented to the alteration and subsequent indorsers. But when an instrument has been materially altered and is in the hands of a holder in due course, not a party to the alteration he may enforce payment thereof according to its original tenor. A change in date is specified under the act as a material alteration. The case stated, however, does not seem to come under the provisions of the act, as the change of the date of the note was not an alteration, but the correction of a mistake. If it could be proved that the change was merely to correct some mistake and to make the note conform to the original intention of the parties, it would not avoid the note, but it would be still enforceable as against the maker. (See

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Hammerschlag vs. Union National Bank of Wilmington, 13 W. N. C., No. 205.)

QUESTION 6

One Frank Hastings was the owner of the household furniture in the house where he lived, including a piano. Being pressed for money, he desired to make a sale of the piano, and Thomas Stone agreed to purchase it from him for \$100 and paid him the cash therefor. Hastings said that he was about to move in a few days and that it would be convenient if the piano were left at the house until the time of removal, when Stone could come and take it away. To this Stone agreed. The following day, however, the landlord distrained upon all the furniture in the house for unpaid rent. Was Stone entitled to claim and to take away the piano which he had bought and paid for? State the reasons for your answer.

ANSWER TO QUESTION 6

The general rule of law is that all goods on the premises are liable to distress for rent in arrear. There are certain exceptions to this rule in the case of goods left on the premises in the course of trade, but the case stated does not come within any of the exceptions. The title to the goods is immaterial, and as long as they remain on the premises the landlord is entitled to levy on them for rent. Under the circumstances Stone would not be entitled to remove the piano which he had bought and paid for.

QUESTION 7

Samuel Ellison gave a bond and mortgage secured upon his house for the sum of \$5,000. He failed to pay interest and the mortgage was foreclosed. The holder of the mortgage bought the property at sheriff's sale for \$50. He afterwards sold the property for the sum of \$6,000, thus receiving more than the amount he had loaned to Ellison. Notwithstanding this, he brought suit upon the bond to recover from Ellison the sum of \$4,950 with interest. Is he entitled to recover?

ANSWER TO QUESTION 7

A mortgage in Pennsylvania is in the nature of a security for the payment of a debt. The property is pledged as collateral for the payment of the debt represented by the bond, which in the case stated was for the sum of \$5,000. A default having been made in the payment of the interest as specified in the bond, it was then the privilege of the holder of the mortgage to proceed to sell the property which was the collateral he held for the payment of the note or bond. The property was offered at public sale by the sheriff and was sold for \$50. It is

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immaterial who purchased the property. The amount of the debt was only reduced by the amount of the proceeds of the sheriff sale. As a result, there was still due to the holder of the mortgage the sum of \$4,950 with interest, and the holder of the bond was entitled to proceed on it to recover that amount from Ellison, his mortgagor.

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QUESTION 8

James Black wrote to William Tomlinson offering him one hundred barrels of apples at \$3 per barrel. Tomlinson replied, "I accept your offer, you guaranteeing apples to be shipped immediately and free from all defects." The market price of apples rose within the next week one dollar per barrel, and no apples arriving Tomlinson wired, asking why his apples had not been shipped. To this Black replied that he had sold the apples elsewhere and was not shipping any to him. Tomlinson then brought suit for the one dollar per barrel advance in price. Can he recover? State the reasons for your answer.

ANSWER TO QUESTION 8

In order to make a contract complete and binding on all parties there must be an offer made by one of the parties to the other, which offer must be accepted without any qualifications. In the case stated, Tomlinson accepted the offer, but not in the terms in which the offer was made. He had another condition, to wit: That the party making the offer guarantee the apples to be shipped immediately and free from all defects. A contract was, therefore, not made, and Black was not obliged to ship the apples. Tomlinson was, therefore, not entitled to recover.

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QUESTION 9

The Maple and Elm Street Railway Company was incorporated with an authorized capital stock of \$250,000, all of which was issued. Frederick Wheeler was the President of the Road and, being engaged in stock speculation and in need of money, he issued 500 additional shares of stock, to which he procured the signature of the secretary and affixed the seal in the regular way. This stock he sold and received the money, which he appropriated to his own use. Afterwards the fraud was discovered. What are the rights of the holders of this over-issued stock? Are they entitled to be considered stockholders of the company or can they recover the value of the stock in cash from the corporation? Give your reasons for your answer.

ANSWER TO QUESTION 9

A corporation is bound to recognize as members the *bona fide* holders of stock issued by the president and secretary without authority, where such officers have charge of issuing stock and the certificates are not on their face distinguishable from stock properly issued, provided such issue does not increase the corporation's capital beyond the authorized

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amount. By *bona fide* holders are meant those who have paid a valuable consideration for the stock without notice of the fraud; but if such stock would increase the corporation's capital beyond the authorized amount, the holders thereof do not become stockholders in the ordinary sense of the word, but the corporation must refund to them the amount advanced on the stock. The reason upon which the law is based is that the regular stockholders have intrusted the president and secretary with the authority and power to issue certificates of stock, and where such officers have exceeded their authority and one of two innocent parties must suffer by reason thereof, the law holds that the one who must suffer is he who has afforded the opportunity for the commission of the fraud. (See *Willis vs. Fry*, 13 Phila. Reports, 33.) It might be added, however, that the Corporation Act of 1874 provides that certificates of stock must be signed by the president and countersigned by the treasurer, so that the stock certificates signed by the president and secretary, without the treasurer's signature, would under Pennsylvania law be void, and would be notice to the subscriber of the fraud committed in their issuance.

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### QUESTION 10

Five persons agree to organize a corporation for the purpose of carrying on the manufacture of iron and steel. Each is to contribute \$10,000 and receive stock to that amount. Owing to the necessity of advertising, a month or so must elapse before the charter can be obtained and they are all desirous of expediting the matter as much as possible. Two of their number, accordingly, who are most active, purchase some machinery for installation in the property which they rent, and lumber and other materials for making alterations in the building. The purchases are all made in the name of the Star Iron Works, which they have selected as the name of the company. Owing to a disagreement between them, however, the company is not formed. Are the other parties liable for the purchases made by the two above mentioned, and if so upon what theory?

### ANSWER TO QUESTION 10

The directors and promoters of a proposed corporation who enter into a contract for work to be done or material to be furnished for the corporation before obtaining a charter are personally liable on such contract. (See *Dengler vs. Helms*, 4 Walker, 476.) In the case stated the three persons who were not concerned in the purchase of machinery merely agreed to subscribe to a certain amount of stock of the proposed corporation, and it was contemplated that they should become liable only as such subscribers or stockholders. There is nothing in the question which indicates that the three inactive parties authorized the purchase of the machinery or ratified the transaction after it was completed. In the absence of such authorization or ratification they could not be held liable for the purchase price.

# New York C. P. A. Examinations of January, 1913

ANSWERS BY PAUL-JOSEPH ESQUERRE, C.P.A.

## PRACTICAL ACCOUNTING—PART I

### QUESTION I

Company C was incorporated in May, 1910, to acquire the stock of companies A and B. Company C's capital stock is divided into preferred, \$2,500,000; common, \$1,500,000; all the stock is outstanding and fully paid; it has been issued (a) for stock to the stockholders of companies A and B, (b) \$20,000 of preferred for organization expenses, (c) for cash. The stockholders of A and B received preferred stock for the intrinsic, undepreciated book value of the assets, as reflected by the following balance sheets of their companies at June 30, 1910, and \$300,000 of common stock divisible equally to companies A and B.

	<i>A</i>	<i>B</i>		<i>A</i>	<i>B</i>
Plant, land . . . . .	\$ 90,000	\$ 195,000	Capital Stock outstanding:		
Building and equipment . . . . .	254,000	318,000	Common . . . . .	\$ 700,000	\$ 1,000,000
Machinery and Transportation equipment . . . . .	21,000	17,000	Preferred . . . . .	100,000	
Investment in land . . . . .		150,000	6% bonds, 1915, J & J, and interest accrued		
Investment in bonds—Co. B	60,000		Accounts payable . . . . .	59,800	41,656
Investment in stocks . . . . .	200,000		Loans payable . . . . .	65,800	35,000
Goods in process	45,000	49,341	Audited vouchers unpaid ..	18,320	13,400
Finished goods	69,000	76,340	Demand notes payable . . . . .		5,000
Materials and supplies . . . . .	58,000	51,300	Reserve for depreciation . . . . .	24,900	30,000
Cash . . . . .	17,420	19,175	Reserve for doubtful accounts . . . . .		
Accounts receivable . . . . .	51,000	92,800	Reserve for contingencies . . . . .	5,000	2,000
Demand notes—Co. B . . . . .	5,000		Surplus . . . . .	16,000	
Accrued interest	1,800			111,000	26,000
	<u>\$1,100,820</u>	<u>\$1,245,756</u>		<u>\$1,100,820</u>	<u>\$1,245,756</u>

Between July 1 and July 31, 1910, the following transactions occurred: organization expenses paid in cash by Company C, \$5,000; intercompany advances by C: to A \$60,000, to B \$60,000; Company A reduced its accounts payable by \$25,000, its loans payable by \$30,000, and

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its audited vouchers by \$15,000; Company B reduced its accounts payable by \$29,500, liquidated its audited vouchers unpaid and its interest due under the bonds.

The manufacturing operations of the period show: Company A—labor, \$10,000; overhead expense, \$8,000; materials consumed, \$9,886; inventory of goods in process, \$46,300, of finished goods, \$50,740; selling expenses paid, \$1,600; administration expenses, \$2,500; sales, \$72,500; collections of open accounts, \$86,400. Company B—labor, \$3,600; overhead, \$2,350; materials, \$5,210; inventory of goods in process, \$40,500, of finished goods, \$46,380; sales, \$98,000; collection of open accounts, \$109,150; administration expenses, \$3,000.75; selling expenses, \$1,040.

No materials were purchased during the period and the current expenses were paid as soon as the invoices were audited. Company A declared a dividend of \$100,000 and Company B a dividend of \$25,000.

Prepare the consolidated balance sheet of companies A and B and C, at July 31, 1910, to be submitted to the directors of Company C, and so arranged as to show them the exact detail of the properties that they control.

ANSWER TO QUESTION I

CONSOLIDATED BALANCE SHEET OF COMPANIES A, B, C, AT MARCH 31, 1910 \*

ASSETS

	Company A	Company B	Company C	Eliminations and additions	Consolidated balance sheet
<i>Capital Assets:</i>					
Plant land .....	\$ 90,000.00	\$ 195,000.00			\$ 285,000.00
Buildings and equipment .....	254,000.00	318,000.00			572,000.00
Machinery and tools .....	228,800.00	278,800.00			506,400.00
Transportation equipment .....	21,000.00	17,000.00			38,000.00
Goodwill .....				514,900.00†	514,900.00
Investments in land .....		150,000.00			150,000.00
Investment in bonds of Company B .....	60,000.00			60,000.00*	
Investment in stocks of other companies .....	200,000.00		2,814,900.00	2,814,900.00‡	200,000.00
	\$ 853,800.00	\$ 956,800.00	\$ 2,814,900.00	\$ 1,860,000.00	\$ 2,265,800.00
<i>Working and Trading Assets:</i>					
Materials and supplies .....	\$ 48,114.00	\$ 46,090.00			\$ 94,204.00
Goods in process .....	46,300.00	40,500.00			86,800.00
Finished goods .....	50,740.00	46,380.00			97,120.00
	\$ 145,154.00	\$ 132,970.00			278,124.00
<i>Current Assets:</i>					
Cash .....	\$ 73,520.00	\$ 182,734.25	\$ 1,540,100.00		\$ 1,746,854.25
Accounts receivable .....	37,100.00	81,650.00			118,750.00
Demand notes, Co. B .....	5,000.00			5,000.00*	
Accrued income .....	300.00			300.00*	
Advances to affiliated companies .....			120,000.00	120,000.00*	
Dividends receivable .....			125,000.00	125,000.00*	
	\$ 115,920.00	\$ 214,384.25	\$ 1,785,100.00	\$ 250,300.00	\$ 1,865,104.25
<i>Deferred Debit Items:</i>					
Organization expense .....			\$ 25,000.00		\$ 25,000.00
	\$1,114,874.00	\$1,304,154.25	\$4,125,000.00	\$2,110,300.00	\$4,438,528.25

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**LIABILITIES**

	Company A	Company B	Company C	Eliminations additions	Consolidated balance sheet
<i>Capital Liabilities:</i>					
Capital stock outstanding:					
Preferred .....	\$ 100,000.00		\$ 2,500,000.00	\$ 100,000.00*	\$ 2,500,000.00
Common .....	700,000.00	\$ 1,000,000.00	\$ 1,500,000.00	\$ 1,700,000.00*	1,500,000.00
Bonds, 6%, 1915, J & J .....		90,000.00		60,000.00*	80,000.00
	<u>\$ 800,000.00</u>	<u>\$ 1,090,000.00</u>	<u>\$ 4,000,000.00</u>	<u>\$ 1,860,000.00</u>	<u>\$ 4,080,000.00</u>
<i>Current Liabilities:</i>					
Demand notes payable .....	\$ 5,000.00			\$ 5,000.00*	
Loans payable .....	\$ 85,800.00	\$ 85,000.00			\$ 70,800.00
Advances by affiliated companies .....	60,000.00	60,000.00		120,000.00*	
Accounts payable .....	84,800.00	12,156.00			46,956.00
Audited vouchers .....	8,320.00				8,320.00
Dividends payable .....	100,000.00	25,000.00		125,000.00*	
Interest accrued in bonds..		450.00		300.00*	150.00
	<u>\$ 283,920.00</u>	<u>\$ 187,606.00</u>		<u>\$ 250,800.00</u>	<u>\$ 121,226.00</u>
<i>Surplus:</i>					
1. Appropriated:					
Reserve for depreciation .....	\$ 24,900.00	\$ 30,000.00			\$ 54,900.00
Reserve for doubtful accounts receivable .....	5,000.00	2,000.00			7,000.00
Reserve for contingencies .....	16,000.00				16,000.00
	<u>\$ 45,900.00</u>	<u>\$ 32,000.00</u>			<u>\$ 77,900.00</u>
2. Available for dividends .....	\$ 34,854.00	44,548.25	125,000.00		204,402.25
	<u>\$ 80,754.00</u>	<u>\$ 76,548.25</u>	<u>\$ 125,000.00</u>		<u>\$ 282,802.25</u>
	<u>\$ 1,114,674.00</u>	<u>\$ 1,804,154.25</u>	<u>\$ 4,125,000.00</u>	<u>\$ 2,110,800.00</u>	<u>\$ 4,483,528.25</u>

\* Intercompany holdings.

† Investment eliminated because represented by the assets which represent its value, less the liabilities for which they are subject.

‡ Composed of:

Excess of cost over intrinsic value of assets of A and B .....

\$810,000.00

Surplus of A and B:

a. Appropriated for reserves .....

\$ 77,900.00

b. Available for dividends .....

127,000.00 204,900.00

\$514,900.00

**CASH—COMPANY A**

Balance .....	\$ 17,420.00	Accounts payable .....	\$ 25,000.00
Company C .....	60,000.00	Loans payable .....	30,000.00
Accounts receivable .....	86,400.00	Audited vouchers .....	15,000.00
Interest on bonds.....	1,800.00	Labor .....	10,000.00
		Factory expense .....	8,000.00
		Selling .....	1,600.00
		Administration expense .....	2,500.00
		Balance .....	73,520.00
	<u>\$165,620.00</u>		<u>\$165,620.00</u>
Balance .....	<u>\$ 73,520.00</u>		

Red ink entries are indicated by italics.

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GOODS IN PROCESS—COMPANY A

Balance .....	\$ 45,000.00	Finished goods .....	\$ 26,586.00
Materials and supplies..	9,886.00	Inventory .....	46,300.00
Cash—labor .....	10,000.00		
Cash—factory expense ..	8,000.00		
	<hr/>		<hr/>
	\$ 72,886.00		\$ 72,886.00
Balance .....	\$ 46,300.00		

PROFIT AND LOSS—COMPANY A

Finished goods .....	\$ 44,846.00	Sales .....	\$ 72,500.00
Selling expense .....	1,600.00	Interest on bonds .....	300.00
Administration expense ..	2,500.00		
Surplus .....	23,854.00		
	<hr/>		<hr/>
	\$ 72,800.00		\$ 72,800.00

FINISHED GOODS—COMPANY A

Goods in process .....	\$ 26,586.00	Inventory .....	\$ 50,740.00
Balance .....	69,000.00	Profit and loss .....	44,846.00
	<hr/>		<hr/>
	\$ 95,586.00		\$ 95,586.00

SURPLUS—COMPANY A

Dividends .....	\$100,000.00	Balance .....	\$111,000.00
Balance .....	34,854.00	Profit and loss .....	23,854.00
	<hr/>		<hr/>
	\$134,854.00		\$134,854.00

Balance .....

CASH—COMPANY B

Balance .....	\$ 19,175.00	Accounts payable .....	\$ 29,500.00
Company C .....	60,000.00	Audited vouchers .....	13,400.00
Accounts receivable ....	109,150.00	Interest on bonds .....	2,700.00
	<hr/>		<hr/>
		Labor .....	3,600.00
		Factory expense .....	2,350.00
		Selling .....	1,040.00
		Administration expenses.	3,000.75
		Balance .....	132,734.25
	<hr/>		<hr/>
	\$188,325.00		\$188,325.00
Balance .....	\$132,734.25		

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GOODS IN PROCESS—COMPANY B

Balance .....	\$ 49,341.00	Finished goods .....	\$ 20,001.00
Materials and supplies ..	5,210.00	Inventory .....	40,500.00
Cash—labor .....	3,600.00		
Cash—factory expense ..	2,350.00		
	<hr/>		<hr/>
	\$ 60,501.00		\$ 60,501.00
Balance .....	\$ 40,500.00		<hr/>

PROFIT AND LOSS—COMPANY B

Finished goods .....	\$ 49,961.00	Sales .....	\$ 98,000.00
Selling expense .....	1,040.00		
Administration expense..	3,000.75		
Interest on bonds.....	450.00		
Surplus .....	43,548.25		
	<hr/>		<hr/>
	\$ 98,000.00		\$ 98,000.00

FINISHED GOODS—COMPANY B

Goods in process .....	\$ 20,001.00	Inventory .....	\$ 46,380.00
Balance .....	76,340.00	Profit and loss .....	49,961.00
	<hr/>		<hr/>
	\$ 96,341.00		\$ 96,341.00

SURPLUS—COMPANY B

Dividends .....	\$ 25,000.00	Balance .....	\$ 26,000.00
Balance .....	44,548.25	Profit and loss .....	43,548.75
	<hr/>		<hr/>
	\$ 69,548.25		\$ 69,548.25

CASH—COMPANY C

Preferred capital stock.	\$ 465,100.00	Advances .....	\$ 120,000.00
Common capital stock..	1,200,000.00	Organization expenses .	5,000.00
	<hr/>		<hr/>
	\$ 1,665,100.00	Balance .....	1,540,100.00
Balance .....	\$1,540,100.00		<hr/>
			\$1,665,100.00

CAPITAL STOCK, PREFERRED—COMPANY C

Preferred capital stock		Investment in stocks...	956,900.00
Authorized .....	\$2,500,000.00	Investment in stocks...	1,058,000.00
	<hr/>		<hr/>
	\$2,500,000.00	Organization expenses .	20,000.00
	<hr/>	Cash .....	465,100.00
			<hr/>
			\$2,500,000.00

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**CAPITAL STOCK, COMMON—COMPANY C**

Common capital stock authorized .....	\$1,500,000.00	Investment in stocks...\$ 300,000.00
		Cash ..... 1,200,000.00
	<hr/> <u>\$1,500,000.00</u>	<hr/> <u>\$1,500,000.00</u>

**INVESTMENTS IN STOCKS OF OTHER COMPANIES—  
COMPANY C**

Preferred capital stock.\$ 956,900.00	Balance .....\$2,314,900.00
Preferred capital stock. 1,058,000.00	
Common capital stock.. 300,000.00	
	<hr/> <u>\$2,314,900.00</u>
Balance .....\$2,314,900.00	<hr/> <u>\$2,314,900.00</u>

**COMMENTS ON QUESTION I, PART I**

The points of interest in this problem appear to be:

1. The amount of cash which has been obtained by Company C through the issue of stock is not given; and since the amount of stock issued by C in exchange for the capital stock of A and B is not mentioned, the accurate building up of the cash account of C depends upon the understanding of what constitutes "intrinsic, undepreciated book value of the assets."
2. The goodwill which, so far as C is concerned, represents the difference between the intrinsic book value of the assets and the price paid for the stock of A and B, *i.e.*, \$300,000, will have to be expressed in the consolidated balance sheet at a figure which can be obtained only from careful consideration of its components.
3. All the intercompany holdings will have to be eliminated from the consolidation, upon the ground that this exclusion will not in any way alter the status of a single one of the assets of A and B controlled by C. If this test cannot be applied to a proposed elimination, it should not be made.

*1. The Amount of the Issues of Stock for Cash:*

The term "intrinsic undepreciated book value" means all the assets of A and B, as appearing on the balance sheets submitted, less their liabilities to outsiders, no cognizance whatever to be taken of the reserves. Thus, since the intrinsic undepreciated book value of the assets of A and B is in the aggregate \$2,014,000, this amount of preferred stock was issued by C to the stockholders of A and B. Further, if \$20,000 of the same stock was issued for organization expense, the company must have received \$465,100 in cash for the balance. As to the common stock, it is plain that the price paid in stock by Company C for the excess of cost

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over intrinsic value being \$300,000, the balance of the authorization, i. e., \$1,200,000, was issued for cash.

*2. The Component Parts of the Goodwill:*

The assets of A and B, as appearing in the balance sheets of these two companies at June 30, 1910, aggregate .....	\$2,346,576.00
Deducting from this figure the amount which has been acquired through the use of credit, i. e., through the incurrence of liabilities to outsiders .....	331,676.00

We obtain an amount of .....	\$2,014,900.00
Which represents, according to principles of accounting..... of assets acquired through the use of the capital contributions of the stockholders, as evidenced by the capital stock liabilities of the two companies.	1,800,000.00

Deducting the capital stock, a remainder of.....	\$ 214,900.00
--	---------------

which cannot be anything else than the assets acquired by companies A and B through the reinvestment of their undivided profits of prior periods, as measured by:

a. The surplus available for dividends.....\$ 137,000.00

*3. The Eliminations:*

Irrespective of their importance to companies A and B in their capacity as separate entities, the debts of A to B and of B to A are nothing to C, who owns the stock of both. It is plain that if, for instance, the demand notes held by A against B were to be repaid by the latter, A would have more cash, and less claims against other companies, while B would have less cash, and a lesser amount of liabilities to outsiders. But it is also evident that the consolidation of the cash account of A, B and C would give a figure absolutely identical with the one shown in the balance sheet, i. e., \$1,746,354.25, which is the true extent of C's control of available cash. If the same reasoning is applied to any one of the eliminations shown in the above solution, the same result will be obtained.

The elimination of the investment in stocks of other companies as carried by C in its balance sheet, must be eliminated because, instead of expressing the amount of the investment, it is required that the assets which it controls, subject to whatever liabilities attach to them, be expressed in detail. The elimination of the capital stock of companies A and B is indicated by logic. If the said stock originally controlled the assets of A and B, and has since been replaced by the stock of C, it is only the latter which controls the assets; the former is a nonentity to C for purposes of a consolidated balance sheet. It represents only documentary evidence of the transfer of the assets which were originally acquired out of it.

Although the requirements of the problem do not call for ledger accounts, they have been given here as they may be of help to the student of accounting.

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b. The surplus appropriated for the purpose of reserves....\$ 77,900.00  
\_\_\_\_\_  
\$ 214,900.00

Thus we have found two of the components of the goodwill acquired by Company C. As to the third, it must, of necessity, be the \$300,000 of common stock issued by C in excess of the intrinsic value of the assets of A and B. To prove that the resulting figure of \$514,900.00, which is called goodwill on the consolidated balance sheet submitted above, is truly what it pretends to be, let us assume that instead of expressing its investment in stocks of other companies at cost, as appears to have been done, Company C had expressed it at the par of the stocks acquired. The journal entry would have been:

Investment in stocks of other companies....	\$1,800,000.00
Goodwill .....	514,900.00
To capital stock preferred .....	\$2,014,900.00
Capital stock common .....	300,000.00
For acquisition of the stock of companies A and B, the goodwill being represented by:	
1. Undivided profits .....	\$137,000.00
2. Appropriations of surplus..	77,900.00
3. The goodwill value of the investment covers the in- trinsic value of the assets acquired .....	300,000.00
	_____
	\$514,900.00

QUESTION 2

Karl Smith is a real estate broker and agent who, among other things, manages properties in consideration of commissions, ranging from 3% to 5% on rent collections. For the last two years his books have been kept in haphazard fashion and in violation of the law of agency. They are incomplete as to footings and postings; no trial balance of the general ledger has been obtained and no reconciliation of bank balances has been established during the above mentioned period. The tenants' rent book is a species of "tickler" in which the current rent charges are entered in pencil and inked in when paid; the names of the tenants of properties not leased are also entered in pencil and erased when the tenants move, the new names being entered in the places thus left vacant.

Having accidentally discovered irregularities in the tenants' book, Karl Smith has discharged his bookkeeper-cashier and engaged an accountant to conduct an examination of his books, records and accounts, discover the extent of the shortage, which he fears is considerable, and install a new system of accounts.

After spending considerable time in an attempt to place the books on an accounting basis, the accountant finally obtains the following trial

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balance of the ledger, as of September 30, 1912, installs a new system which will permit his client to fulfil his accounting duty as an agent and renders a preliminary report accompanied by a statement showing clearly the financial status of the relations of Karl Smith to his principals:

TRIAL BALANCE

Cash .....	\$ 350.20	Karl Smith, capital .....	\$ 4,360.40
Petty cash .....	100.00	Commissions .....	22,510.00
The Augusta Terrace (a)	216.00	Phoenix Insurance Co...	470.00
The Victoria Court (a) ..	805.00	London Insurance Co....	450.10
The St. Quentin Court (a)	650.00	The Frederic Apartment	
The Audubon Court (a) ..	270.00	(f) .....	2,385.30
The Evening Despatch (b)	75.00	The Venetian Court (f) ..	2,500.00
The Morning News (b) ..	35.00	The Franklin Castle (f) ..	3,231.00
The Union Wall Paper Co. (b) .....	111.20	St. Martin Hall (f).....	2,850.70
The Janitors' Supplies Co. (b) .....	45.25	Tenants .....	1,550.00
Insurance account (c) ....	920.10		
Karl Smith, drawings (d)	16,930.00		
Cash shortage (e) .....	380.00		
Salaries .....	12,140.00		
Office expense .....	3,130.00		
Furniture and equipment.	4,150.75		
	<hr/>		<hr/>
	\$40,307.50		\$40,307.50
	<hr/>		<hr/>

Notations by the accountant:

- (a) Remittances on account of collection of October rents, paid in advance upon signing lease, not as yet credited to principals. Settlements to be made on the 29th of every month.
- (b) Balances represent payments from March to June, 1912, for advertising, decorating and supplies, for the account of managed properties. Paid bills cannot be found; no detail available; itemized receipted bills asked for by letter; no answer at September 30, 1912.
- (c) Premiums on fire insurance placed by agent for account of sundry clients not principals. Premiums will be paid to agent if risk is accepted and he will deduct commissions of from 5% to 15% from settlement with companies.
- (d) Probably contains charges which might properly be capitalized under caption "Furniture and Fixtures" if positive information were available.
- (e) Entries made in cash book by accountant, for rent collections appearing in monthly statements to principals but not appearing in cash book or in duplicate of bank deposits obtained from banks.
- (f) According to the terms of his employment the agent must remit on the fifth day in every month.

Prepare the preliminary report and the statement submitted by the accountant to Karl Smith, as at September 30, 1912.

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ANSWER TO QUESTION 2

EXHIBIT A

AGENCY BALANCE SHEET OF KARL SMITH, REAL ESTATE AGENT, SHOWING HIS RELATION TO HIS PRINCIPALS AT SEPTEMBER 30TH, 1912

<i>Assets held for the account of the principals:</i>	<i>Liabilities to principals payable in subsequent period:</i>
Cash .....\$ 350.20	The Frederick Apartment. \$ 2,385.30
Petty cash .....100.00	The Venetian Court..... 2,500.00
Total .....\$ 450.20	The Franklin Castle..... 3,231.00
	St. Martin Hall ..... 2,850.70
<i>Claims against principals:</i>	<i>Offsets of debits to principals:</i>
a. October rent collections remitted with September rents:	Collections of October rents not as yet debited to tenants, or credited to owners, but paid to the latter ..... * 1,940.00
The Augusta Terrace. \$ 215.00	
The Victoria Court.... 805.00	
The St. Quentin Court. 650.00	
The Audubon Court... 270.00	
	\$ 1,940.00
b. Disbursements for advertising, decorating and janitor's supplies, awaiting distribution to various owners:	
The Evening Despatch. \$ 75.00	
The Morning News.... 35.00	
Union Wall Paper Co.. 111.20	
Janitors' Supplies Co.... 45.25	
Total .....\$ 266.45	
Total .....\$ 2,206.45	
<i>Offsets of credits to principals:</i>	
Rents credited to principals and charged to tenants; not as yet credited *\$ 390.00	
<i>Agency deficiency</i> .....\$ 9,860.35	
Total .....\$12,907.00	Total .....\$12,907.00

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EXHIBIT B

PERSONAL BALANCE SHEET OF KARL SMITH, REAL ESTATE AGENT, AT  
SEPTEMBER 30TH, 1912

Furniture and equipment.	\$ 4,150.75	Liability to principals....	\$ 9,860.35
Insurance receivable (see <i>contra</i> ) .....	920.10	Insurance payable (see <i>contra</i> ) .....	920.10
Total .....	\$ 5,070.85		
Deficit .....	5,709.60		
	<u><u>\$10,780.45</u></u>		<u><u>\$10,780.45</u></u>

EXHIBIT C

PROFIT AND LOSS ACCOUNT FOR TWO YEARS ENDED SEPTEMBER 30TH, 1912

Salaries .....	\$12,140.00	Commissions .....	\$22,510.00
Office expense .....	3,130.00		
Cash shortage .....	380.00		
Net profit—drawing acct..	6,860.00		
	<u><u>\$22,510.00</u></u>		<u><u>\$22,510.00</u></u>

DRAWING ACCOUNT

Drawings .....	\$16,930.00	Net profit .....	\$ 6,860.00
		Capital—impairment .....	10,070.00
	<u><u>\$16,930.00</u></u>		<u><u>\$16,930.00</u></u>

CAPITAL

Impairment .....	\$10,070.00	Balance .....	\$ 4,360.40
		Deficit .....	5,709.60
	<u><u>\$10,070.00</u></u>		<u><u>\$10,070.00</u></u>

Karl Smith, Esq.,  
Real Estate Agent,  
New York.

Dear Sir:

In accordance with your request of ..... I have made an examination of your books, records and accounts for the last two years, and in connection therewith I beg to submit, attached hereto, the following described exhibits:

\* The two components of the balance shown by the tenant's account.

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**Exhibit A.** Balance sheet of the agency of Karl Smith, real estate agent, showing the status of his relations to his principals at September 30th, 1912.

**Exhibit B.** Personal balance sheet of Karl Smith, real estate agent.

**Exhibit C.** Profit and loss account of Karl Smith for the two years ended September 30th, 1912, followed by his drawing account and his capital account as adjusted at September 30th, 1912.

Your suspicions in regard to the extent of the shortage which you claimed to be due to the peculations of your bookkeeper-cashier are grounded only to an extent which is almost insignificant in comparison with the deficiency shown by your accounts in connection with your relations with your principals.

Your agency balance sheet shows that you have appropriated \$9,860.35 of the funds which were intrusted to you in virtue of the terms of your employment as an agent. The admittedly involuntary conversion of these trust funds to your own use, was rendered possible by your failure to comply with the requirements of the law of agency which regulates your relations with your principals. Under the provisions of that law, an agent is required to keep his money and his property aside from that of his principals, and that of his principals aside from that of third parties. Unquestionably, your accounting has been of such a nature that the said requirements have been violated. Had you so kept your books that the cash received from the tenants of your principals would have been recorded in separate accounts so earmarked as to indicate the ownership of the funds represented therein, or, at least, in a separate agency cash account common to all your principals, you would not have taken advantage of the available cash balance of a cash account which you treated as you own, to increase your asset furniture and fixtures, and to defray the cost of running your business over and above the returns thereof in the line of profits. In this connection, it may be well to point out to you that while I have shown the asset furniture and fixture, as belonging to you, it is evident that it would belong to your principals if they were to claim it upon the ground that you have violated the terms of your employment, thereby inflicting upon them an injury for which you are liable.

The seriousness of your financial condition is far too evident on the face of your balance sheet to require extensive comments. You have no assets of your own, and it is impossible for you to remain engaged in your present business, unless you are able to obtain the funds necessary to constitute to your principals that which you have taken from them.

The cash shortage which appears on the debit side of your profit and loss account represents, so far as I have been able to ascertain from the conditions of your books, the extent of the defalcation of your bookkeeper-cashier. The peculiar method of keeping the so-called tenants' rent book, which has been in vogue in your office, has enabled your employee successfully to hide from you the fact that he was taking

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advantage of an extraordinary looseness in accounting methods. It may be interesting to point out to you that even in the event of the said employee having been under bond, it would not be possible to hold the bonding company owing to the fact that your own carelessness and lack of control of your finances has led him into temptation, and deprived the bonding company of the employer's collaboration, to which they are entitled.

While attempting to analyze your drawing account, I have received the impression that not a few of the charges made therein could have been made to the asset account, furniture and fixtures. However, I have refrained from adjusting the account, owing to the lack of positive information on the subject. I will point out to you that even though corrections of such a nature could be made to a considerable extent, they would not help you in the least, since, avowedly, you have acquired the asset furniture and fixture out of funds to which you had no right whatever.

In connection with what is called on the agency balance sheet submitted herewith "Claims against principals," it must be stated that the attempt on my part to obtain duplicate bills for the amount of \$266.45, which is shown as undistributed to the various principals, has failed up to date. As soon, however, as said duplicates and the required information are obtained, the accounts referred to will be closed by charges to the individual principals.

The spirit of the new accounting system which I have installed is so to arrange your accounts that each trial balance of your general ledger will show:

Your personal assets, your personal liabilities and your income debits and credits; and so far as your principals are concerned, the assets which you hold in trust for their account, the debts which you have contracted for their account, the balances of their account current, and, on either side of the trial balance, if the occasion arises, the debit or credit accounts which act as *contras* one of the other.

As soon as your business has been rehabilitated, it will, of course, be necessary to have at least one agency bank account where all the funds of your principals will be deposited, and upon which you will draw for your own account only at the time when you are entitled to the commissions on your collections of the month.

The tenants' ledger which has been placed in operation, is so arranged as to show monthly the tenants' arrears of the prior month, the charges for the current month, the credits for arrears or current rent, either in the form of cash paid by the tenant or in the form of concessions chargeable to the principals.

The cash book shows, in separate columns, the cash receipts and the cash disbursements made for the account of each one of the properties managed.

The voucher record contains in appropriate columns, the details of

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the liabilities incurred by you for the account of the principals in connection with the management of their properties.

From these different records the following entries will be made monthly:

Debit "Tenants" and credit "Principals' account current" with the current rent.

Credit "Tenants," debit "Principals' cash" with the collections.

Debit "Principals," credit "Principals' audited vouchers" with the amount of the invoices received during the month.

Debit "Principals' audited vouchers," credit "Principals' cash" with the amount of liquidation of liability for audited vouchers.

Debit "Principals' account current" and credit "Agent's commission account" with the commissions on the collections.

Debit "Principals' account current" and credit "Principals' cash" with the remittances of the month.

Debit "Agent's general cash" and credit "Principals' cash" with the amount of the check covering the commissions.

Thus the trial balance of your agency will reveal the following:

Debits

Agency cash

Tenants—uncollected rents

Credits

Principals' audited vouchers unpaid

Principals' account current

I have also drawn a form of monthly statements to principals, which, besides giving more detailed information than the one you are using at present, will enable you to check personally the different data recorded therein. The form will contain practically a copy of your agency transactions with your individual principals as shown by the columnar books referred to above. Under the provisions of the law, your principals are entitled to such a copy, if they care to have it. The monthly statements will show:

The arrears of rent and of charges made against tenants for electricity, telephone service and extension and miscellaneous items collectible from the tenant; the current rent and current charges as stated above; the collections of arrears and current charges; all the required information in connection with the bills received for work done on the properties managed; commission charged by you, and the remittance accompanying the statement.

Yours truly,

(To be continued)

## Correspondence

### Importance of Comments on Reports

*Editor, The Journal of Accountancy:*

Sir: In your March issue, we notice that Mr. R. J. Bennett answers question 7 of the Pennsylvania C. P. A. examinations of November, 1912, in detail. On page 220 of THE JOURNAL he has the following words: "I have carefully examined the books and accounts for the past five years and have set forth the entire data in the accompanying statement."

We would like to ask the gentleman just what he means by the above sentence. In doing this we do not mean to place ourselves in a position where it would appear that we desired to "try to be smart," for such is not the case.

In our territory we find one of the most important features of accounting work is the letter, or text, that is written accompanying the report. It is one that has given our office a great deal of work and hard study, and we are trying to improve on this particular subject in every way that we can, and our special object in writing this letter is to find out from Mr. Bennett what he means by the sentence that we have brought up. We find that it is highly advantageous to state plainly whether or not we audited the books, the exact time that we covered in all the departments of the books, and how we verified the inventories, the accounts receivable and bills receivable and the accounts payable.

We audited a large wholesale grocery house only a few months ago and the proprietor, when we came to checking up the merchandise, was out of town, and his secretary and treasurer advised our accountants that as the accountants who had made the examination for some three or four years previous to our examination had not done this, he would rather they would not go into it. We did not like this, but our men were working under his direction and, of course, his wishes had to be respected. However, when we turned in our report, we stated in the text of it that we did not get invoices to support the giving of the cheques, as this was requested to be passed up by the secretary and treasurer. As soon as the proprietor found this out, we were called down to his office and he very plainly informed us that he had been informed that the merchandise account had been thoroughly checked each year and this was a big surprise to him, and he positively stated that next year he wanted us to check the account very carefully, even though it took twenty days to do it. The account that we refer to was handled on the following basis: The firm carried no accounts payable ledger for the reason that everything was paid for by cash and discount taken whenever it was possible. Two columns on the cash book represented the merchandise account, one column was used for foreign purposes and one for local purposes, cheques were drawn from time to time, paying off different firms, and then entered on the cash book, giving the name of the

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firm and the amount placed in one of the merchandise columns. Very frequently they would get some New York exchange and sometimes they would lump ten, fifteen or twenty cheques in one amount and enter it on the cash book, say to merchandise. Of course, the cheque stub, or register, would show the amount in detail.

Suppose we had reported to the wholesale grocery that we refer to that we had audited, or examined, their accounts without telling them plainly what we had not done, and a big defalcation had sprung up in the merchandise account, where should we be? We know of any number of accounting firms, and some of them the very best firms of New York, Chicago and other places, that have had their representatives in this territory, who have been bitterly censured because of certain omissions which could have been easily obviated had they stated what they did and did not do. In other words, is it not highly important for the protection of the profession and one's office to be careful to state in detail what is done, giving special attention to the dates covered, say in checking back the representative accounts, verifying accounts receivable, going into the inventory and accounts payable, and other phases that might need particular attention?

In conclusion, from Mr. Bennett's statement, would the average layman construe from the text of his report that by this expression, "I have carefully examined the books and accounts for the past five years and have set forth the entire data in the accompanying statement," that he had thoroughly audited the books, verified the accounts receivable and payable, gone over the inventories, and to what extent, and if proven by certain calculations other than the mere checking of them or going over them? If you will give us your views on this matter and have Mr. Bennett answer us, personally, or through **THE JOURNAL**, we shall very much appreciate it.

Yours very truly,

O. R. EWING & COMPANY.

Memphis, March 22, 1913.

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### Mr. Bennett's Reply

*Editor, The Journal of Accountancy:*

Sir: The letter from O. R. Ewing & Co. to **THE JOURNAL OF ACCOUNTANCY** has been forwarded to me for reply. It is customary for the accountant to write a report or letter to accompany the statements or exhibits which he submits to his client, but the length of the report must, of course, depend upon the accountant's judgment as to how much information he should place therein. Sometimes this report or letter covers only a few lines, while at other times it is more extended and may cover even several pages. Of course the matter contained should be set forth clearly and unmistakably, with any suggestions or recommendations deemed necessary, and perhaps explanatory paragraphs bearing on items which appear in the accompanying exhibits. It seems in-

## *Correspondence*

advisable, however, to encumber the report with references to minor matters which could be brought orally to the attention of the book-keeper or office manager. It seems unfair also for the accountant to use his official position to criticize employees unless the occasion really demands it. In many cases unimportant errors can be corrected, or even a change in plans brought about with more harmonious results, through personal advice rather than through criticism of work by way of the report. A kind word costs nothing, and a few words of advice may work wonders in the life of an employee.

Sometimes it is advisable to present a supplementary report. This may be directed to the president, the treasurer or the office manager, setting forth ways and means for improving the accounting and office methods. It will be seen that this does not form a part of the report, but is simply a separate letter of suggestions and instructions.

I am grateful for the suggestions regarding the sentence in my answer to question 7 in the March issue of THE JOURNAL. It evidently could be materially improved by a change in wording and by stating more clearly the scope of the examination. Instead of saying, "I have set forth the entire data," I might have stated that the information contained therein had been condensed from the book accounts as a result of my investigations. Other qualifying words could also have been included, such as would obviously come to one's mind in an actual case. Of course the exhibit itself indicates the period under review, while the letter states that I have made a careful examination of the books covering the five years ended December 31, 1911. The letter or report is very important, as suggested in my opening remarks on question 7, yet my answer was prepared more to illustrate the manner of preparing reports and statements than to set up model phraseology. I heartily agree, however, in the emphasis which Ewing & Co. place upon the report, because if it is made at all it should be made carefully; but if it is made lengthy for the purpose of saying something or for offering advice, there is always the possibility of saying more than is necessary and of being misunderstood.

Faithfully yours,

R. J. BENNETT.

Philadelphia, April 1, 1913.

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### Louisiana State Board of Accountancy

The Governor of Louisiana has appointed Guy V. W. Lyman of New Orleans to fill the vacancy in the state board of accountancy.

Mr. Lyman is secretary of the Society of Louisiana Certified Public Accountants.

The new board organized by the selection of C. E. Wermuth as president, Moses Elkins as secretary, and G. V. W. Lyman as treasurer. The examination to be held in New Orleans on May 23 and 24 will be the first since 1911.

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### Oregon State Board of Accountancy

The Governor of Oregon has announced the personnel of the Board of Accountancy created under act passed this year. The following are the members of the new board:

- John Y. Richardson, Portland.
- Arthur Berridge, Portland.
- A. McE. Ball, Portland.
- W. H. Wann, Medford.
- Charles L. Parrish, Klamath Falls.

The Oregon law becomes effective June 4th.

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### Tennessee State Board of Accountancy

The Governor of Tennessee has appointed the first board of accountancy under the new law as follows:

- George M. Clark, Chattanooga, three-year term.
- F. M. Pike, Memphis, three-year term.
- Walter S. Black, Knoxville, three-year term.
- Ira P. Jones, Nashville, two-year term.
- O. R. Ewing, Memphis, one-year term.

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### Announcements

Wright, Schooley and Morse, public accountants, announce that their office is now in the Woolworth Building, New York.

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It is announced that M. H. Bennett, William Mackendrick and Frederick F. Hahn, certified public accountants, have consolidated their practices under the firm name of Bennett, Mackendrick and Hahn, with offices in the Hellman Building, Los Angeles, California.

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D. B. Lewis & Company, certified public accountants, Boston, Massachusetts, announce that they have transferred their office from 708 to 542 Exchange Building, 53 State Street.

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It is announced that T. B. Cornell has withdrawn from the firm of Smith, Brodie & Cornell, certified public accountants of Kansas City. The business will be continued by F. A. Smith and A. F. Brodie under the firm name of Smith & Brodie.

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The Pace Institute of Accountancy announces that Harold Dudley Greeley, L.L.M., C.P.A., has been elected director of the division of accounting instruction in the metropolitan schools. Mr. Berton L. Maxfield, Ph.B., continues as director of the division of law instruction. Approximately 2500 students are enrolled for the professional three-year courses in the Pace Institute of Accountancy and the nineteen affiliated resident schools conducted in conjunction with the Young Men's Christian Association in New York and other prominent cities.

## Book Department

BUILDERS' ACCOUNTS. BY JOHN A. WALBANK, F.C.A. *Gee & Company.* London, 1913. Third Edition. 96 pages. \$1.40.

There is a very slight difference between the former edition of *Builders' Accounts* and the present volume, the most important being the fact that provision is made in the pay roll book for handling health insurance under the English national insurance act of 1911. Otherwise no changes of importance have been made since the book first appeared in 1903. That no improvements are suggested during a period in which American building methods have made such enormous strides would seem to indicate that the book will be of but little value to an American.

It is claimed that the system described may be adapted to the needs of both small and large contracting builders, yet the system suggested as suitable for large undertakings has such very burdensome and antiquated methods that we cannot see how even in England it can be advantageously used. For instance, as to pay roll, the foreman makes daily returns in writing, giving the name of each workman. The idea of the foreman writing the names of all the men each day is amusing. No method is suggested for distinctive serial numbers for various classes of work, such as contracts, jobbing work, extra, etc. The overhead, added to actual cost, is a percentage on the wages, instead of in addition thereto a percentage on material handled.

The financial records are made cumbersome by regarding the cost records as an integral part, instead of being partly subservient thereto. The stores issued are handled in a columnar book instead of on cards or loose leaf—an almost impossible procedure for a large contractor. Accrued wages at closing period are not considered sufficiently important to distribute to the jobs and contracts to which they belong, yet it is advised to take profits on the finished portion of uncompleted contracts. Accrued wages are shown only on the pay roll account as a total. The overhead expenses are not treated scientifically in a separate section of the profit and loss account, thus losing the value of that part of the system whereby they are considered in the cost accounting. Payments of the notes payable are not covered by cheque, although all other payments are so covered. Safeguards on pay roll and other well-known internal checks are not mentioned.

It was to have been hoped that a book from the press of 1913 would give us an insight into the progress in modern accounting of our brethren across the water, but we are disappointed in this. We must, in fact, refuse to accept it as a modern English book. Nevertheless, as nothing like it exists in America it is a valuable book for students and small builders.

JOHN B. GRISBECK.

## *The Journal of Accountancy*

**INTEREST AND BOND VALUES.** By M. A. MACKENZIE, M.A., F.I.A.,  
A.A.S. *Toronto University Press.* 1912. 94 + 10 pages. Cloth. \$2.

The purpose of this book is to set forth in a clear and simple manner the principal facts relative to interest computations and the calculations of bond values, and also to explain the use of the various tables connected therewith. The author is a member of the faculty of the University of Toronto, and while the book was written mainly for his own classes, it will be found useful by students at other universities and by business men who come in touch with problems of this nature. The meaning of present worths, amounts, sinking funds, present values of bonds, and so forth, is explained, and illustrative examples are given.

The use of algebraic symbols and expressions is almost unavoidable in a book of this nature, and some of the pages will doubtless seem formidable to those not accustomed to algebra. However, the algebraical portions of the book are comparatively small, and should not militate against its value to the business man or student unfamiliar with higher mathematics. The most original work is found in the problems and exercises in the latter part of the text. These are well selected, and a solution of them by the reader should be of great benefit and will much increase his grasp of the subject. A valuable addition is the insertion of five tables of interest computations, covering twelve different rates from one to five per cent for any number of periods from one to fifty. In the case of the tables, it would possibly have been better to have the number of decimal places uniform, say seven or eight, instead of four in some instances and six in others.

LEROY L. PERKINE.

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### BOOKS RECEIVED FOR REVIEW

*Accountants' and Bookkeepers' Vade Mecum.* By G. E. Stuart Whatley, London. 2d edition, 1913. 168 pages. 8vo, cloth. Price, \$2.50. Gee & Co.

*Accounting Principles.* By S. F. Racine. 1913. 274 pages. 8vo, cloth. Price, \$3. S. F. Racine Co.

*Advertising as a Business Force.* By P. T. Cherington. 1913. 569 pages. 8vo, cloth. Price, \$2. Doubleday, Page & Co.

*Buyer's Key for Textile Cost Finding.* By F. P. Bennett. 1913. 35 pages. 16mo, limp leather. Price, \$3. F. P. Bennett & Co.

*Cost Finding in the Cloak and Suit Industry.* By Philip Frankel. 1913. 20 pages. 12mo, paper. Price, \$2. Philip Frankel.

*Cost Reports for Executives as a Means of Plant Control.* By B. A. Franklin. 1913. 149 pages. 8vo, cloth. Price, \$5. Engineering Magazine Co.

*Experiments in Industrial Organization.* By E. Cadbury. 1913. 296 pages. 8vo, cloth. Price, \$1.60. Longmans, Greene & Co.

# The Journal of Accountancy

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## The National Budget on its Expenditure Side

BY HARVEY S. CHASE, C.P.A.

I have prepared no formal address for consideration at this meeting but I have had printed summaries of the United States budget (see pages 398 and 399), and they will give you an idea of a portion of the work which the President's commission on economy and efficiency has been doing in the line of preparing a governmental budget for the next fiscal year. These summaries exhibit the expenditure side of the budget solely, and cover the financial year beginning July 1st, 1913.

Of course, no man can estimate what congress is going to do with the tariff or what it is going to do with the income tax. At the present time nobody knows—neither congress, nor the president, nor any one else—and therefore it would be futile for me to attempt to estimate what the revenue side of this budget will be. Under the requirements of law the secretary of the treasury last fall did compute, somewhat roughly and crudely, as is ordinarily done, what the revenue might be, and his estimate was forwarded to congress at the same time that the printed estimates of expenditures were sent in by him from the various departments.

Originally, back in the time of Alexander Hamilton and at the beginning of our financial development as a government, there was marked antagonism between the executive and the legislative branches of the colonial government. Usually the executive was a royal governor, while the legislative body represented the citizens, the colonists. For this reason the legis-

\* An address before the Massachusetts Society of Certified Public Accountants at Boston, Mass., April 9, 1913.

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THE BUDGET OF THE

Expenditures of the Government (as Estimated)

Classified in four different ways: A. by Purposes of Expenditure; B. by Character

A. Classified by Purposes. (Functions, or Classes of Work.)		B. Classified by Character of Expenditures. (Expenses, Outlays, etc.)	
I. General Functions.		I. Current Expense, etc.	
Legislation	\$8,660,365.47	Overhead and operating expenses	\$565,798,628.22
Executive direction and control	2,836,125.00	Upkeep of property	22,764,889.42
Departmental administration, etc.	20,813,891.40	Fixed charges, interest	24,849,263.12
General business activities (a)	124,187,727.51	Court and treaty awards	40,491.42
Legal advice, etc.	3,858,890.00	Pensions, retirements, etc.	195,152,431.10
Adjudication	5,741,313.33	Subsidies, grants, etc.	12,426,278.80
Total general functions	<u>186,098,312.71</u>	Indemnities	100,000.00
			<u>821,131,982.22</u>
II. Public-service Functions.		II. Acquisition of Property.	
Military:		Land	2,531,825.00
Defense by land	102,556,164.95	Buildings	20,958,272.61
Defense by sea	146,615,091.43	Improvements to land and waterways	74,974,139.91
Pensions, etc.	203,394,808.24	Equipment	73,542,149.55
	<u>452,566,064.62</u>	Stores (increase)	7,268,549.44
		Work-in-progress (increase)	115,522.47
Civil:		Unclassified	10,805,946.77
Providing facilities for transportation	116,844,538.02		<u>190,196,405.75</u>
Agriculture, forestry, etc.	27,372,039.63		
Indians, etc.	14,018,907.41		
Public health	7,817,342.48		
Education, recreation, etc.	5,736,545.21		
Medium of exchange	4,584,554.59		
Laboring classes	4,372,808.23		
Friendly relations, etc.	4,341,688.20		
Commerce and banking	3,023,658.53		
Defective, dependent, etc.	2,622,486.84		
Patents and copyrights	2,242,690.89		
Meteorological	1,712,490.00		
Trading, mining, etc.	930,438.60		
Census, etc.	765,060.00		
Standards, weights, and measures	612,395.00		
Total, other than Postal Service	<u>206,997,640.63</u>		
Postal service, etc.	<u>276,983,944.16</u>		
	<u>483,981,584.79</u>		
III. Contributions to Local Government.		III. Other Expenditures (Unclassified).	
District of Columbia and Territories	<u>7,978,410.15</u>	In large part "acquisition of property"	<u>38,610,984.29</u>
Total all functions	<u>1,110,624,372.27</u>	Total	<u>1,049,939,372.27</u>
IV. Deduct amount payable by District of Columbia	<u>583,795.00</u>	IV. Sinking Fund.	
Total expenditures by United States Government	<u>\$1,110,040,577.27</u>	To be reserved for payment of the public debt	<u>60,685,000.00</u>
V. Deduct Amount payable by District of Columbia	<u>583,795.00</u>	Total	<u>1,110,624,372.27</u>
Total expenditures by United States Government	<u>\$1,110,040,577.27</u>		

(a) Includes "sinking fund" \$60,685,000.

\*Distributed by Departments, etc.  
Summarized from tabulations prepared by the  
By HARVEY

*The National Budget on its Expenditure Side*

**UNITED STATES OF AMERICA.**

**for the Fiscal Year Beginning July 1, 1913.**

**of Expenditure; C, by Organization Units; D, by Appropriation Acts.**

C. Classified by Organization Units. (Departments and Subdivisions.)	D. Classified by Acts of Appropriation. (As Estimated in November, 1912.)
<b>I. The Congress.</b>	<b>I. Current Appropriations.</b>
Senate \$1,769,716.50	Legislative, executive, and judicial \$36,289,615.50
House of Representatives 4,895,420.25	Sundry civil 119,668,577.66
Committees and commissions 1,912,773.72	Agricultural 18,287,230.00
Capitol buildings and grounds 178,900.00	Diplomatic and consular 4,072,752.61
Capitol police 78,450.00	Army 96,497,987.08
Government Printing Office* 251,424.00	Fortifications 6,945,086.80
Superintendent of documents 849,885.00	Military Academy 1,666,735.69
Library of Congress 849,885.00	Naval 151,463,758.53
National Botanic Garden 30,893.75	Indian 11,308,316.53
	Pension 185,220,000.00
	Rivers and harbors 69,678,064.73
	Post-office (from general treasury) 155,000.00
	Post-office (from postal revenues) 281,641,506.00
	District of Columbia 6,624,668.80
	Deficiencies 277,137.10
	Miscellaneous 818,398.27
	Unclassified 2,420,428.00
<b>II. The President.</b>	<b>II. Recurrent Appropriations.</b>
The Executive Office 199,040.00	Definite 11,916,182.72
The Commission on Economy and Efficiency† 250,000.00	Indefinite 3,174,449.75
	Determinate (a) 85,801,695.12
	Revenue 17,206,794.39
	Total 1,110,624,372.27
<b>III. The Judiciary.</b>	
<b>IV. The Executive Departments.</b>	
State 4,653,372.61	
Treasury (a) 136,306,557.92	
War 199,195,018.28	
Justice 5,768,097.84	
Post-office 284,141,018.00	
Navy 152,626,008.53	
Interior 230,216,066.50	
Agriculture 24,706,012.72	
Commerce and Labor† 17,163,404.62	
<b>V. Other Government Establishments.</b>	
Isthmian Canal Commission 30,174,432.11	
Interstate Commerce Commission 1,790,000.00	
Civil Service Commission 440,075.00	
Smithsonian Institute 988,895.12	
Lincoln Memorial Commission 300,000.00	
Others 206,300.00	
<b>VI. Districts and Territories</b>	<b>III. Deduct amount payable by District of Columbia</b>
Total 6,124,508.80	583,795.00
Total 1,110,624,372.27	
<b>VII. Deduct amount payable by District of Columbia</b>	<b>Total expenditures by United States Government</b>
583,795.00	583,795.00
Total expenditures by United States Government 81,110,040,577.27	81,110,040,577.27

\*Separate Departments hereafter.

President's Commission on Economy and Efficiency.

†CHASE.

†Amount recommended by President Taft.  
No appropriation made by Congress.

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lative body was frequently jealous of the gubernatorial power, and in the preparation of our present constitution great care was taken that the executive should not become too powerful. For this reason the secretary of the treasury was required to be, in this particular, the servant of the legislative body instead of the servant of the executive as he is in all other respects. Although a cabinet officer, and although appointed by the president and subordinate to the latter, he is in this matter of the estimates only a "messenger boy" for congress.

THE FIRST STEP TOWARD A BUDGET

By law the heads of departments and officers of the government are required to send, in ample time, to the secretary of the treasury their estimates of expenditures proposed for the ensuing fiscal year. These estimates are presented in the fall of each year in preparation for appropriations which will not be available until July 1st of the next year. Prior to the opening of congress in December the secretary of the treasury prepares and has printed each year all the estimates of the departments and offices of the government, arranged under the present law in exactly the same form in which they have been arranged in years before. Congress has been particularly emphatic about this—that no change should be made in the forms of these estimates—and for good reasons, namely, the committees of congress which have to do with appropriations can judge of the new estimates only by comparison with the old, and, if changes—marked changes—were permitted in the form in which these estimates are submitted, the committees of congress would be wholly at sea; they would not know how to make comparisons. For this reason congress has been exceedingly antagonistic to any suggestions made by the president or by our commission on economy and efficiency concerning modifications of the general estimates scheme, and it is therefore evident that to bring about results congress should be given the information in the same form that it has had for many years; and at the same time there should also be submitted each year a budget on new lines, comprising the same amounts as in the old form, but arranged in a new form. This double submission should be continued for a series of years until there has been

## *The National Budget on its Expenditure Side*

established sufficient precedent upon the new form so that the old may be abandoned with safety. This is the way, I imagine, in which this most important change will be brought about; in fact, this seems to be the only practicable way to accomplish it.

The president's commission has, therefore, devoted much time to devising a scheme that would give information which the old form of estimates has never given, and the statement exhibited herewith is a summary of the work which the commission has done on these lines during the six months from August, 1912, to February, 1913.

### FOUR CLASSIFICATIONS

It seemed to the commission exceedingly important that in a budget statement on the expenditure side there should be set up, first, a classification of the total expenditure by "functions" or "classes of work," which the government proposed to undertake—that is, by *purposes*. This has never been done by this government, nor by any government completely, so far as we know—and we investigated more than twenty foreign nations before we undertook to lay out this budget.

In the second place it seemed advisable to make the very important distinction, which all accountants recognize, between "current expenses" and "capital outlays," which had not been made before in the United States government as a whole, and which is not completely differentiated in the accounts of any government with which we are acquainted. It is true that many other governments do very much better in this regard than the United States government has done heretofore. The two summaries labeled A and B on the statement before us are, therefore, the product of the commission's work primarily, while the two classifications labeled C and D (C being a classification by organization units, that is, by the departments and subdivisions which are to spend the money, and D a classification by acts of appropriation, which is a statement of the way in which congress has authorized the expenditure) are the forms ordinarily used heretofore. The last classification, D, is the one with which congress is most familiar, and the only form in which anything at all approaching a "budget" statement has been set up in the United States government prior to this year.

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To build up the totals which are set forth on these summaries required some 25,000 sheets about 30 by 24 inches, which came in from all departments and offices of the government; and upon these sheets all details were set forth. Then it fell to the commission to classify and summarize and foot up the amounts which finally appear in these tabulations now before you, each of which, you will note, totals to the same sum, namely, a billion, one hundred and ten millions of dollars.

If we make comparisons between the usual classification represented by D—acts of appropriation—and by C—organization units (which is the form in which the annual reports of the secretary of the treasury have been set forth heretofore)—and the summaries prepared by the commission, A and B, a number of exceedingly striking and important points will immediately be evident. Referring to A, classified by *purposes*, it will be noted that there are three primary divisions: I, general functions; II, public service functions; III, local government functions. General functions, consisting of what an accountant would ordinarily label "overhead," relate to legislation, executive direction and control, departmental administration, general business activities, legal advice and adjudication. The total of these general functions amounts to over one hundred and sixty-six million dollars.

The next section, public service functions, is divided into (1) military and (2) civil; the total of military amounting to \$452,000,000, of which \$203,000,000 is for pensions, while \$102,000,000 is required for defense by land and \$146,000,000 for defense by sea. In comparison with *military* the expenditures for *civil* purposes, whose items are set forth here on the schedule, amount to about \$484,000,000. If we examine the details of these several functions, we find that "postal service" is the largest, amounting to \$277,000,000, and of course the question arises immediately in your minds, as accountants, what is there on the revenue side to offset this expenditure of \$277,000,000? There is, in fact, a very large amount, not quite sufficient to equal this expenditure, but very nearly to equal it, arising from the revenues of the postal service.

The next important item is "transportation interests," amounting to \$117,000,000, which includes expenditure for rivers and harbors, and for the Panama canal. "Agriculture, forestry,"

## *The National Budget on its Expenditure Side*

etc., amount to \$37,000,000, but when we come down to questions of "public health," with less than \$8,000,000, and to "education and recreation," with less than \$6,000,000, or to "commerce and banking," with a little over \$3,000,000, while "trading, mining, etc.," have less than one million, we have a striking contrast with expenditures for military purposes, as above, \$452,000,000.

Never before in the history of the United States government has it been possible to make such comparisons as these, for the reason that appropriations, shown in D, have never been classified by *purposes*. In each of the appropriation bills which congress sets up, there are elements which should properly be set forth under other titles. For instance, the pension bill sets forth here, in D, \$185,220,000, whereas the total expenditures for pensions, retirement allowances, etc., amount, in A, to over \$203,000,000; the difference between the 185 and the 203 millions being included in various other appropriation bills. In the same way the Indian appropriation carries \$11,303,000, while the actual expense on account of Indians and other dependent wards of the nation, amounts to over \$14,000,000. The army bill carries ninety-six and a half millions, while the costs of "defense by land" are over \$102,000,000. So we could go on for some time making these striking comparisons. Sufficient has been stated to show the non-relation between the acts of appropriation as now prepared and passed by congress, and the actual purposes for which money is intended to be spent.

### CURRENT EXPENSES IN CONTRAST WITH CAPITAL OUTLAYS

Another very notable feature which is brought out in these classifications is in B, where the distinction is made between the total expenditures of the government for "current expenses," that is, for operating and maintaining the government, which amount to \$821,000,000, and the amount spent for "capital outlays," that is, for acquisition of lands, buildings, improvements, equipments, stores, etc., which amount to \$190,000,000.

I call your attention to the third term, "Other expenditures (unclassified)," amounting to \$38,611,000. That means that out of the total expenditure of a billion, one hundred and ten millions, it was impossible to classify nearly thirty-nine millions

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as between "current expenses" and "capital outlays." Now, no further criticism of the condition of bookkeeping of the United States government as a whole is needed than this fact: that the commission with all the power it had, with the president behind it and with earnest efforts by the departments coöperating, could not determine in the time available where nearly \$39,000,000 of the government expenditures should fall, *i. e.*, whether they were *current expenses* or *capital outlays*.

SINKING FUND

It will be noted in IV of summary B that \$60,685,000 is reserved as a sinking fund for the payment of the public debt. An accountant would naturally think that that really meant something; but it means nothing. The requirements of the law for a long period have been that one per cent of the total outstanding public debt on June 30th should be laid aside for a sinking fund to retire that debt. Each year there is an entry made upon the books, whereby the treasury apparently transfers one per cent, setting up a reserve or sinking fund according to the law, but there is nothing whatever on the asset side to provide funds for this bookkeeping credit. There is no actual "sinking fund"; there is nothing in fact but a memorandum account on the books of the treasury, which now stands at a very large number of millions of dollars, but which actually means nothing whatever. The secretaries of the treasury in their reports, year after year, have pointed out this fact and have requested congress to change the law so that it could be complied with in fact as well as in letter. Nothing has been done about it, however, and nothing will be done about it, or can be done about it, until we have a proper banking and currency act which will relieve the situation in relation to United States bonds. These bonds cannot be paid off in the present circumstances, as they are required for the basis of national bank circulation, and therefore the false position of the sinking fund must necessarily be continued. Now, for the first time in the history of the United States government, this requirement of law has been set up as if it were a fact, and has been brought to the attention of congress and of the executive in such a way that the long delayed action must be taken.

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If we were to figure, as our commission has done, what the requirements of the sinking fund would actually be, in order to retire all outstanding bonds in twenty years, we should find that the amount would be about \$45,000,000 per annum instead of \$60,000,000, as now required by the one per cent clause of the present law. In schedule A this \$60,000,000 appears in "general business activities," \$124,000,000. In schedule B it appears by itself. In schedule C it appears in "treasury" \$136,000,000.

### OTHER COMPARISONS

Turning now to C—classified by organization units—we have the usual form of summarized expenditures of the United States government as they have been reported heretofore, namely, by departments and subdivisions of the government. Here again distinctions between the amounts expended by such organization units as set forth in the law, and the amounts expended for *purposes or functions* of the government, as they have been classified in schedule A, are very noticeable. These differences, however, cannot be avoided for the present. It is probable that gradually, having these classifications before it, congress will modify the laws which establish the departments and subdivisions of the government until the latter will more clearly represent functions or purposes of expenditure than they do at present. Whether this is done or not, it is perfectly feasible in the opinion of the commission so to change the "acts of appropriation" that they will fit into the new classifications by *purposes*, and then the organization units must spend the money in accordance with the appropriations as made.

It is evident, if we take the item of "adjudication" in division I of schedule A, which amounts to \$5,741,000, and compare it with C, "the judiciary," \$5,408,000, that we get a close approximation. The moneys for the judiciary are set up in schedule D under the "legislative, executive and judicial" bill, and are included in the \$36,000,000 which that bill carries.

The appropriation for legislative, executive and judicial is divided in very great detail in the bill itself, and we have subsidiary schedules of each of these items, running down to the expenditure of the smallest amount. In fact this summary was built up of items from the smallest offices, which were accumu-

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lated in the 25,000 sheets. Every unit of organization of the government sent in to the commission, by executive order, a statement of its estimate of the expenditures necessary for it for the ensuing fiscal year, under each of these four classifications.

ESTIMATES AND APPROPRIATIONS

Before this new classification was made those three large items were put together in appropriations, in very great detail. The "book of estimates" of the United States government is a volume two inches thick and twelve inches square, and in it are all the estimates upon which the acts of appropriation are based. This is merely a summary of the acts of appropriation. What is called the "digest of appropriations" is a book equal in size to the estimates. The way in which the appropriation committees actually determine whether or not a department is asking for more than it should is by calling the heads of departments and their subordinates before them, and putting these executives "on the grill." The committees go into these matters very exhaustively, asking why and for what purpose and for what reasons the increases, if there are such, are required. This is the basis on which the appropriations of congress are now made —a *personal* basis. It is very thoroughly done, and it is the fear of loss of this control that congress is naturally somewhat jealous about. The members do not wish to have their control interfered with, and they ought not to have it interfered with, until they can be given a better method. The new plan proposes that there shall be in the executive and in the legislative branch of the government provisions for a central authority which shall pass upon the appropriations as a whole; that, in the first place, the executive shall formulate a general plan, and, having determined what can be raised as revenue, shall then subdivide the amount among the different purposes for which the money, in the view of the executive, should be spent.

CENTRAL ADMINISTRATIVE DIVISION

The commission advises that there be established a new "central administrative division," which shall be directly under the

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president and be a part of the executive office, which shall take from the treasury the accounting, auditing and investigating features, which are now elements of that department, and establish them in this new central executive board. One reason, among others, for this is that now the department of the treasury, in theory, has authority over other departments, which it ought not to have, and which it cannot exercise as such control ought to be exercised, without awakening jealousy and interfering greatly with the harmonious progress of all departments. No head of a department desires the head of another department to come in and investigate his office, but no secretary would make serious objection to an investigation by the president or by his immediate representatives.

The commission has not suggested that this executive officer should have the privilege of the floor in support of the budget. That would be more a political matter than an economic matter. It appears to be the view, however, of some of the leaders of the Democratic party at the present time that it would be advisable for cabinet officers to have the right to be heard in the senate.

Under the present system, the secretary of the treasury audits the bills as well as pays them. The auditing force of the government is a subdivision of the treasury. There is an auditor for war and an auditor for the navy and auditors for the state and for other departments, but these are all officers of the treasury. They audit the accounts of the disbursing officers, of whom there are about 4,500 in the government. This new board would take that auditing out of the treasury department and bring it into this new centralized auditing and accounting division.

This means that we would have promptly prepared and proper statistics of the government's receipts and expenditures. The form of report of the United States government would be completely reorganized. The reports are promptly available now. We have a statement issued by the secretary of the treasury every day. Some features of it are right up to date—yesterday's business—some of it is nine months old. There are very good reasons for this.

The commission thinks it has discovered ways in which to get around many of these reasons and within a comparatively short

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time the secretary of the treasury—the present secretary of the treasury—will take action on these lines, and we shall have much better reports than we have had in the past.

TERMINOLOGY

"Recurrent" appropriations in section II are the titles that the commission—together with the committees of the various departments that met with the commission in determining many matters—decided to be proper. In section D the distinctions are "current" appropriations and "recurrent" appropriations. The title "current appropriations" explains itself. It means appropriations made every year for current purposes. "Recurrent appropriations" are of four kinds. They are appropriations that made once do not have to be made again each year. They are either "definite," as stated, which means a specific amount, or "indefinite," like interest payments, concerning which general authority is given for paying all requirements in relation thereto. And in the same way "determinate" is a technical title. "Revenue" appropriations are those appertaining to the cost of collecting revenues, which have to go on from year to year.

There is a distinction between "determinate" and "definite." One is a question of time and the other is a question of amount. The question of terminology has been one of the features that the commission naturally had in mind, and these titles which have been finally determined have been thoroughly threshed over.

THE COMMISSION ON ECONOMY AND EFFICIENCY

The organization of the commission on economy and efficiency was this:—Six members were appointed by the president, that is, five commissioners and a secretary, whose power was co-ordinate with the commissioners. An appropriation was provided, which formed a part of the White House appropriations, and was under the jurisdiction of the president. A force of accountants and clerks was established, subject to the approval of the president. Associated with the commission in each of the departments were various committees, consisting of the men in each department best fitted to act in their several capacities.

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There was a committee on accounting in each department, a committee on office methods in each department, etc. Such committees were paid from their own appropriations. They consisted of men in those departments already on salaries. They were detailed from their ordinary duties and devoted themselves for the time being to these new questions. In this way coöperation was had with all the departments, and results were worked out that could not have been obtained in any other way. When a conclusion was reached in regard to a matter, it was only after a meeting of the commission either with the chairman or with the members of these various committees, when the whole proposition was threshed out, usually after many meetings of this sort. It has been an exceedingly laborious proposition, this whole business, because the magnitude of it is tremendous and the field of it is almost appalling. There are 110 different subjects that the commission has attacked.

Dr. Frederick A. Cleveland—formerly head of the bureau of municipal research in New York, prior to that a member of the staff of Haskins & Sells and previously professor of economics at the University of Pennsylvania—was the chairman of the commission. Dr. Cleveland has had practical training both as an accountant and as an investigator in the exceedingly large operations of the city of New York, and was probably the best man that could have been obtained in the United States for this purpose, both on account of his broad theoretical training and of his varied practical experiences. The second member of the commission was William F. Willoughby, who had been assistant director of the census, and prior to that treasurer of the island of Porto Rico. He had been in the service of the government for some time. He also was a university trained man and when he left the commission he took the chair of government at Princeton which was vacated by President Wilson. The third member of the commission was Judge W. W. Warwick, who was formerly assistant solicitor in the treasury, then auditor of the canal zone with Goethals, and finally a judge of the canal zone court. From there he came to the commission. He is a man exceedingly well-informed in regard to all the details of work in the treasury and in the government in general. The fourth member of the commission was Dr. Frank J. Goodnow of Columbia University, who has had the chair of government and constitu-

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tional history there for many years. He is a successful and extremely able gentleman, who has recently been appointed "constitutional advisor" to China and he has just sailed for China to lay out, or to assist in laying out, a new constitution for the 400,000,000 of people in that country. The secretary of the commission was Mr. Merritt O. Chance, formerly auditor of the post-office department. The final member was myself. Owing to the fact that the last congress made no appropriation for the commission, inasmuch as the latter was a presidential proposition, while the Democratic congress was not particularly inclined to favor President Taft, who was going out of office, it became necessary to mark time until it should be determined what view President Wilson would take of these affairs. Meanwhile, as the appropriation was about exhausted, the force could not be kept together and it has been mostly dissipated. Professor Goodnow, Professor Willoughby and myself stepped out from the commission, and recently Mr. Chance has gone back to the post-office department, while Judge Warwick will soon be appointed deputy comptroller of the treasury.

This will leave Dr. Cleveland giving but half of his time to the commission, while most of the assistants have been allowed to go. Of course it is unfortunate that congressional action could not have been taken earlier and the force kept together. However, the main investigation work of the commission has been done, and it remains now for the constructive work to be continued.

At a recent meeting at the White House, President Wilson stated that he was strongly in favor of the work of the commission. While the details of the manner in which further work shall be carried on have not yet been discussed, there is no doubt that the original plans will be continued forcefully and that in due time appropriations will be granted to carry on the work. Unsolicited commendations of the work of the commission have come into our offices and into the offices of senators and representatives as well as to the president, particularly in relation to this "budget" proposition. The whole country seems to have awakened to it; and when we consider what a part these new budgetary measures are to play in our states' accounting and finance, as well as in our municipal accounting and finance, we can see that the field for such work

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is almost endless. Probably nothing has ever been done in the United States which will stimulate efficiency and economy in the transactions of the government, as well as in the operations of the various civil divisions of the country, as will this matter of correct budgetary control of the national finances.

## Foreign Exchange

BY CHRISTIAN DJÖRUP, B.C.S.

*The Encyclopaedia Britannica* says: "Foreign exchange is the system by which commercial nations discharge their debts to each other." On this side of the Atlantic foreign exchange means both the medium by which balances between foreign nations are settled and in a broader sense the price at which this medium is quoted. Thus it will be found that newspapers state at different times: "Exchange on London is going up," *i. e.*, the rate of bills drawn in pounds sterling on London is advancing; or, "Foreign exchange is against us," meaning that the rates of foreign bills of exchange are above par; or, "Foreign exchange rates have a favorable tendency," which is to say that foreign exchange is moving downward, going toward or below par.

The par, par value, or parity of exchange represents the value of the gold unit of the currency of one country expressed in the currency of another nation. Most of the commercial nations have adopted the gold standard, and naturally one can arrive at the parity only as to countries that have established the same standard, while it is impossible to arrive at the par between silver standard and gold standard countries. For instance, gold is quoted in Honduras as a commodity, subject to fluctuations; and silver is in our country like any other commodity, subject to fluctuations and of changing value. It would therefore be impossible to express the fixed value of a silver peso of Honduras in United States dollars, or *vice versa*.

To arrive at the parity between countries of the same standard, we have to know the mint laws of the countries, or how the gold pieces are coined. Taking the United States, England, France, and Germany as examples, we must know that:

United States coins \$10 out of 258 grains of gold, 9/10 fine.  
England coins £1 out of 123,274 grains of gold, 11/12 fine.  
France coins 155 20-franc pieces out of kg. 1 gold, 9/10 fine.  
Germany coins 69 $\frac{3}{4}$  20-mark pieces out of 500 grammes of fine gold  
(9/10 fine).

To arrive at the parities between the United States and the other three countries, we get the following results by using the chain rule:

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? \$	$\frac{1}{\$}$
1	123.274 grs. standard gold
12	11 grs. fine gold
9	10 grs. U. S. standard gold
258	10 \$
	$\$1 = \$4.86654$
	—————
? fr.	$\frac{1}{\$}$
10	258 grs. U. S. standard gold
5760	373.242 grammes French standard gold
1.000	3100 francs
	$\$1 = \text{francs } 5.18262$
	—————
? cents	4 marks
1395	500 grammes fine gold
900	1000 German standard gold
373.242	5760 grains U. S. standard gold
258	10 \$
1	100 cents
	$\text{Marks } 4 = 95.2852 \text{ cents}$
	—————

To arrive at the parities for England we have:

The same chain rule for the United States dollars, as in England the purchasing power of the pound sterling is expressed in the exchange quotation:

	$\frac{\$1}{\$} = \$4.86654$
	—————
? francs	$\frac{1}{\$}$
1	123.274 grs. st. g.
12	11 grs. fine
5760	373.242 grammes fine
9	10 standard
1000	3100 francs
	$\frac{\$1}{\$} = \text{francs } 25.2215$
	—————

Knowing the parity of United States dollars and pounds sterling, and United States dollars and francs, we arrive more quickly at the result by using the following chain:

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? francs	1£	5.18262 x 486654
	1 4.86654 \$	45 6684
	1 5.18262 francs	
		2 07305
		41461
		3109
		311
		26
		2
		25.2214
?	marks	1£
1	4.86654 \$	1946.616 : 95.2852 = 204294
95.2852	400 marks	= 40 912
		2 798
		892
		35
		M 20.43

To arrive at the parity of francs in marks:

? marks	100 francs	2042.94 : 25.2214 = 81.000
	20.4294 marks	= 25.23
		= 1
	francs 100 = marks 81	

The result is obtained more quickly by using the coinage:

? marks	100 francs	2511.31 = 81
	1 kg standard	
3100	1 kg standard	
10	9 fine gold	
1	2790	
		francs 100 = M 81

However, the basis for the exchange quotations is not the parity but the cheque rate, from which discount and bill stamp are deducted to arrive at the rate for long bills, and to which interest is added to arrive at the cable rate. The quotations are regulated by the laws of demand and supply, and the theoretical limits of fluctuation are the gold points.

Demand and supply depend on the balances between commercial nations. If, for instance, foreign nations owe us more than we owe them, *i.e.*, if the trade balances are in our favor, we shall draw heavily on foreign business centers. The supply of foreign bills of exchange will be plentiful, and the exchange rates will go down until they reach a point where some banker finds it profitable to import gold. He will buy bills or cable transfers on London, with which he will purchase gold there.

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The gold will be shipped by the next fast steamer to New York, and at the mint he will receive \$10 for every 232.2 grains of fine gold contained in the shipment. This transaction will be profitable if the rate of exchange, plus the cost of insurance, packing, cartage, freight, loss of interest, and the loss caused by abrasion, not to speak of the small fee paid at the mint, amounts to less than \$4.8665. On the other hand, when the quotations rise to such an extent that the parity, plus shipping expenses, interest, loss, and so forth, amounts to less than the cheque rate, we say that the gold export point has been reached. Some banker will then sell bills on London and purchase gold, which will be sent abroad with the next fast steamer. It may be bar gold, or eagles or double eagles. For every \$4.8665 invested in gold, his correspondents will receive £1 within two or three days from the day of arrival of the gold shipment; and, as the gold and drafts drawn by the New York banker go with the same steamer, there will naturally be a loss of interest of only a few days occasioned by the temporary overdraft on the account with the London banker.

The cheque rates will fluctuate more or less between these gold points. When the outflow of gold commences, the interest rates go up in this country and the exchange rates go down; and, when gold is imported in larger quantities, the foreign countries put the interest rates up and up go the exchange rates in our market. Thus will gold shipments check an excessive rise or fall of exchange rates.

The aforementioned balances between commercial nations are created by imports and exports of merchandise, and also by indirect imports and exports. In connection with merchandise shipments we have freight, insurance, commissions, and, as most of the shipments are made in foreign bottoms, the freight bills reach tremendous figures in the course of a year. The indirect imports and exports are made up of purchase and sale abroad of securities for Americans, or on our stock exchanges for foreigners; the placing of entire bond issues, or parts of them, in either country on account of the other; the interest, being coupons or dividends on American capital invested in foreign securities, and on foreign capital invested in American enterprises; speculative purchase and sale in foreign markets or bourses of commodities like copper, tin, coffee, cotton, grain,

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sugar, and so forth, which involve no actual shipments until settlement day, but primarily the payment or collection of differences gained or lost; the placing of loans with, or for account of, foreign bankers and the resulting settlements; expenses of American tourists abroad, or of foreign travelers in our country: doweries given to American girls marrying foreigners. These and many other indirect imports and exports create balances between nations not shown in the government statistics, but they sometimes outweigh the imports or exports of merchandise. So it may occur that, although our exports of cotton, grain, and flour are largely in excess of the imports for the same period, the foreign exchange rates are very high because of securities sold on our exchanges on account of foreign houses, or American securities sold freely on the foreign bourses and bought by American investors.

The medium most commonly used to settle balances or to effect payments between foreign nations is the bill of exchange. The foreign bills of exchange are divided into clean bills and secured bills, and into short bills and long bills.

Clean bills are drawn by an American institution on a foreign house, and are not accompanied by negotiable shipping documents or securities. They are based on funds deposited abroad, and on credit balances obtained by previous shipments of merchandise, or through loan arrangements. The value of these clean bills depends on the standing of the drawer, the drawee, and the endorsers, if any, and on the drawer's probable authority to issue these drafts.

Secured bills are accompanied by stocks or bonds, which are attached to and mentioned by the bills, and are delivered against payment of these security bills. Then there is the larger class of documentary acceptance or payment bills. The former are bills to which are attached shipping documents evidencing the shipment of merchandise, which documents are to be delivered against the acceptance of the bills. The latter are accompanied by shipping documents to be delivered only against payment of the bills. The shipping documents (mentioned above) must be in a negotiable form, and consist of a full set or sets of bills of lading, the insurance certificates, and documents erroneously considered of minor importance, such as certificates of weight, origin, inspection, hypothecation slips, plain or consular invoices, and so forth, according to the requirements of the trade or law

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in the country of destination. If the bankers in this country would organize a company for the purpose of inspecting and appraising the merchandise used as collateral for documentary bills, and would refuse to accept these bills without inspection certificates signed by reputable examiners, frauds like those perpetrated recently through documentary bills could not occur.

A smaller class of bills called masters' bills should also be mentioned with the clean bills. The master's bill is drawn by the captain of a vessel on the steamship company or its agent at the port of destination, and is generally payable on arrival of the vessel. The purpose of these bills is to supply the captain with funds to meet his expenses.

Bills are further classified as short bills and long bills. The former are drawn for a period of less than thirty days after sight; the latter are payable thirty days after sight, or after a longer period.

In pricing foreign exchange there is also a distinction made as to the character of the maker or drawer and of the drawee, and the bills are divided into bankers' and commercial bills. The bankers' bills may be prime bankers' or plain bankers' bills, according to the character and standing of the principals whose names appear on them. Double name paper drawn by an American banker on a foreign institution will generally be valued higher than single name bills drawn by an American institution on a foreign branch office, or on a foreign institution controlled by the American house.

The commercial bills are also subdivided into prime commercial and commercial bills. The prime bills are those drawn by a commercial house of the highest standing on a foreign banker or a commercial house also of very high standing. The plain commercial bills show as makers or drawees the names of firms not rated so highly.

A foreign bill of exchange can be a short bill, and simultaneously a bankers' or commercial bill and a clean or a secured bill, and the documents attached in the case of a secured bill can be delivered against acceptance or against payment.

A banker pricing exchange takes into consideration in the first place the names appearing on the bills; secondly, the security going with the bills. For example, a banker buying bankers' long bills will take into consideration the standing of

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the firm drawing the bills and of the bank on which the bills are drawn. These drafts are generally issued under some loan arrangement, and the quantity of these bills, called finance bills, offered in the market has to be considered. A great factor in arriving at the price to be paid for the finance bills is the readiness with which foreign banks discount these bills. Finance bills drawn by a very large American concern on its foreign branch office may be discounted abroad at a higher rate than similar bills of a much smaller institution drawn on an independent foreign bank, and consequently the latter class of bills may command a higher rate in our market.

When pricing commercial bills, the banker will consider the name of the drawer or of the merchant from whom he buys the bills, and in the case of clean bills he will not purchase an amount in excess of the credit he would grant to the customer on his notes or bills receivable. A conservative banker will buy documentary bills only to the extent that he would grant loans against merchandise. Naturally, the name of the drawee, the nature of the merchandise, whether perishable or non-perishable, the delivery of the documents, whether against acceptance or against payment, and the foreign market for these bills, will have to be considered. Acceptance bills can be discounted abroad, while documentary payment bills are not discounted by the foreign banks. However, the former are like clean bills after the documents have been delivered against acceptance, and the additional security in the shape of merchandise expires with the acceptance of the bills. The latter retain this security until the bills are paid, and certain classes of documentary payment bills are retired, *i.e.*, taken up before maturity by the drawees or acceptors. Some of the payment bills are held for collection at maturity, and, the money invested in the bills being tied up for a certain length of time, the purchaser of these bills would have to consider the interest rates in New York. The prices quoted for the different bills of exchange will ordinarily vary with the risk, which the foreign exchange man attaches to the specific bills, and with the facilities that he has for handling them abroad.

Other means of transferring funds to foreign countries are cable or telegraphic transfer, which is an order sent by cable for the payment of money, and the mail transfer or delegation,

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which is an order transmitted by letter for the payment of money, or the transfer of a certain amount to a specified payee. Postal money orders are the means adopted by many foreigners for remitting funds abroad, and usually these remittances are made through an institution having branches abroad, or other facilities for the remitting of money through continental postal authorities. Travelers' cheques issued by the American Bankers' Association, by express companies or by bankers have taken the place of international money. They can be cashed in every part of the world, and are taken by many tourists in preference to letters of credit. Travelers' letters of credit authorize the holder to draw up to a certain amount on one foreign bank, or on several banks, or on all the correspondents of the bank issuing the credit. These drafts, which have to be drawn in accordance with the requirements of the letter of credit, are cashed by almost every bank, occasionally even in hotel offices. The letters of credit are paid for either at the time of issue, cash L/C, or the holder furnishes the issuing banker with a guarantee signed by himself or a third party, arranging the payment of the drafts drawn under the credit as they reach the banker.

Having considered the sources that create balances between foreign nations, and the means by which these are settled, the following balance sheet of a foreign department will illustrate some of the transactions that are classified as foreign exchange business.

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**Balance Sheet of the Foreign Department as at March 31, 1913.**

Long Bills	Due to Banks Overdrafts	Due from Banks	Name of Bank	Due to For. Banks	Due from Banks Overdrafts	Long Drafts
\$10,000.00	\$	\$100,000.00	Bank of Great Britain	\$20,000.00	\$10,000.00	\$175,000.00
		60,000.00	Bank of Germany	15,000.00		25,000.00
12,000.00		75,000.00	Bank of France	18,000.00		50,000.00
		20,000.00	Bank of Belgium	5,000.00		
8,000.00		30,000.00	Bank of Switzerland	10,000.00		
		60,000.00	Bank of Italy	20,000.00		
		50,000.00	Bank of Holland	12,000.00		
		20,000.00	Bank of Scandinavia	5,000.00		
		40,000.00	Bank of Austria			
		45,000.00	Etc., Etc.	45,000.00		
\$25,000.00	\$	\$500,000.00	Total	\$150,000.00	\$10,000.00	\$250,000.00

Resources	Dr.	Cr.	Liabilities
Foreign money			Deposits:
Due from banks:	\$5,000.00	\$ 150,000.00	Due to foreign banks
Due to banks, overdrafts		10,000.00	Due from banks, overdrafts
Correspondent banks	500,000.00	100,000.00	Rebated acceptances
Collection banks	20,000.00		
Ex. sold payable steamer day	150,000.00	260,000.00	Total due to banks
Loans, advances, etc.:		30,000.00	Margins
Time loans	200,000.00	5,000.00	Cash letters of credit
Sterling loans	100,000.00		
Long bills	25,000.00	295,000.00	Total Deposits
Advances	50,000.00		Bills payable:
Commercial L/C acceptances	200,000.00	150,000.00	Foreign long drafts
		100,000.00	Customer's long drafts
		200,000.00	Commercial L/C acceptances
		50,000.00	Ex. bought, payable steamer day
		15,000.00	Undivided profits
		440,000.00	Balance
Total	\$1,250,000.00	\$1,250,000.00	Total

Contingent assets and liabilities:		
Unused commercial L/C balances		\$300,000.00
" travelers' L/C "		50,000.00
Travelers' cheques		20,000.00
		<u>\$370,000.00</u>
Endorsers' liability		\$1,000,000.00

### *Foreign Exchange*

The amounts shown in the above balance sheet, or daily statement of a foreign department, are taken from the general ledger and the bank ledger, of which the latter will support the balances shown on the controlling accounts. Control accounts and liability records will supply the detail of the contingent assets and liabilities.

It would be too cumbersome to go fully into all the transactions represented by the items shown in the above statement, and it will be best to elucidate only the treatment of profits and show how some of them are ascertained.

The most logical method of recording and analyzing profits is the calculation of interest earned on the capital invested in the department, and the comparison of the average balances of the individual accounts with the profits made in these accounts. For this purpose an earnings account should be subdivided into the following columns: correspondent banks, commissions, commercial L/C commissions, travelers' L/C commissions and cheques, interest, collections, postage-cables, etc., sundries. Assuming that a statement of March 31, 1913, has been received from a London bank and checked to the account shown on the books of the foreign department, the reconciliation demonstrated below may be the result.

**Reconciliation of English Bank, London, as at Close of Business March 31, 1913.**

### *Foreign Exchange*

Our balance to their debit is the balance shown on the books in foreign and United States currency, and their balance to our credit is the balance shown on the statement and converted at cable rate. Then the items of the account which do not appear in the statement and the items of the statement which are not shown in the account are entered in the reconciliation form in foreign currency only. The dollar values for these foreign amounts must next be ascertained.

The rebated commercial letter of credit draft could be retired at about  $\frac{1}{2}\%$  below the bank rate:

$\begin{array}{l} £2000.--- \text{ due April } 20 \\ \quad 3.68 \text{ 20 days at } 3\% \\ \hline £1.996.13.4 \text{ at } 48770 = \$9737.74 \end{array}$

The drafts sold on the 24th, 26th, and 30th of March approximately correspond with the cheques bought on the same dates, and both are entered with the dollar equivalents as shown on the ledger account.

The mail transfer, being payable on April 4, is valued:

$\begin{array}{l} £10,000.--- \text{ due April } 4 \\ \quad 5.--- \text{ 4 days at } 4\frac{1}{2}\% \\ \hline £9,995.--- \text{ at } 4877 = \$48,745.62 \end{array}$

The collection bill is taken at cable rate and the interest added at the rate allowed in the account, namely 1% above and below the bank rate.

$\begin{array}{l} £1,000.--- \text{ at } 4.8770 = \$4,877.00 \\ \text{plus } 6 \text{ days at } 2\frac{1}{2}\% \quad .2.03 \\ \hline \$4,879.03 \end{array}$

The interest, £50, credited by the foreign bank, being a profit item, is not converted.

The remittances sent abroad on January 10 and February 17, are held for discount, when the account requires it.

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£5,000 due 4/21	21 days at 4½%	£13. 2. 6
8,000 due 4/29	29 days at 4½%	29.—
<hr/>		<hr/>
£13,000		£42. 2. 6
42. 2. 6		
<hr/>		<hr/>
£12,957.17. 6	at 4.8770	= \$63,195.55
		<hr/>

The cable transfer, being payable on April 4, is worth one-half of the mail transfer payable on the same day.

The travelers' letters of credit draft is converted at cable rate, as interest will be collected from the guarantor in New York.

Commissions and so forth are not converted, as they are profit and loss items reflected in the percentage earned on the capital invested in the account.

The difference between the total debits and credits will show the profit. In this case the \$599.69, compared with the average balance of 50,000 for the three months' period, shows a yield of 4.79752%.

$$\% = \frac{599.69 \times 100}{50,000 \times \frac{1}{4}} = \frac{239,876}{50,000} = 4.79752\%$$

To illustrate the profit calculation on a time loan, let us assume that a German bank borrowed marks 1,500,000 on November 1, at 6%, payable in ninety days. The account would appear as follows, cable rate being November 1, 95 5/16, January 30, 95 3/16.

**GERMAN BANK, TIME LOAN ACCOUNT**

1912		1913		
Nov. 1	Cable transfer at 95 5/16.. M 1,500,000.00	357,421.88	Jan. 30	Interest 90 days 6% 22,500.00 5.354.29
			30	Trf. to Deutsche Bk. at 95 3/16. 1,500,000.00 356,953.13
1913	Earnings and ex- pense a/c ...	4,885.54		
		<hr/> <hr/> <hr/>		<hr/> <hr/> <hr/>
		352,307.42		352,307.42
		<hr/> <hr/> <hr/>		<hr/> <hr/> <hr/>

### *Foreign Exchange*

Disregarding the cable charges of a few dollars, \$4,885.54 was the yield of an investment of \$357,421 for ninety days. Using the formula:

$$\% = \frac{\text{Interest} \times 36,000}{\text{Capital} \times \text{days}}$$

We arrive at:

$$\begin{array}{r} 100 \\ 400 \\ \hline 4885.54 \times 36000 \\ 357421.88 \times 90 \\ \hline 89355.47 \end{array} \quad \begin{array}{l} 488554 : 89355.47 = 5.468\% \\ 4177 \\ 603 \\ \hline 67 \end{array}$$

Which is the interest returned on the capital invested in this account.

Assume, further, that the department has made an arrangement with a London banker whereby it can draw long drafts against the payment of a commission of 1/16% for every thirty days running time of the draft. A customer in need of about \$500,000 for ninety days may obtain £100,000 in drafts on the London banker. He can dispose of these drafts and obtain the funds; whereas the department is supplying its credit only. The loan account will be debited at the ninety days' sight rate agreed upon. At maturity it will be credited with the same amount, plus interest and commission collected from the customer, and debited with the cable transfer and commission paid to the foreign banker. The difference will show the profit realized by the department, and not an interest yield, as there is no capital invested.

Should the department, however, draw its long drafts to obtain funds for its own use in the loan market, the long draft, or acceptance account, would be credited with the equivalent obtained for these drafts. At maturity it would be debited for the equivalent at cable rate in dollars, also for the commission paid to the banker abroad, and the difference compared with the original amount obtained for the drafts will show what percentage had been paid for the use of the money.

In conclusion, a few remarks about commercial letters of credit. They are the means by which the foreign exporter obtains immediate cash payment and the American importer the

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sixty or ninety days' credit which he needs to transact business. The American merchant desirous of buying goods abroad obtains a letter of credit in favor of the foreign exporter. The latter will draw a draft for his invoice, or part of it according to the arrangement, on the banker on whom the credit is issued, at sixty days' sight or some other time. The draft, with the shipping and other necessary documents attached, will be presented to the drawee for acceptance. In accepting the draft he will detach the documents and forward them to the foreign department. The latter will immediately notify the importer of the arrival of the documents and deliver them to him against a trust receipt. By virtue of the trust receipt, title in the merchandise remains with the foreign department until payment of the draft has been effected by the importer. This payment is made in time to remit to the accepting bank, and no capital of the foreign department should be needed for the transactions.

Being a credit and a trust, or rather a trusting business, very accurate accounting and a continuous follow-up system as to the credit and standing of the customers is imperative. All the letters of credit issued, the acceptances made abroad and the payments received have to be properly recorded, and control accounts should be kept for the available credits and for the unmatured acceptances, the former showing the contingent, the latter the actual liability of the customers, with a corresponding liability of the department to the foreign acceptors.

# Treatment of Interest on Manufacturing Investment\*

(THIRD SERIES)

## Interest on Manufacturing Investment

By H. C. MILLER

*Bureau of Accounts, New York Edison Co.*

Assuming that it will not be denied that generally cost of production, C, and sale price, S, vary according to the law of supply and demand, it must follow that net income, I, also varies. Where it is possible owing to monopoly conditions to fix rates, income will still vary as cost of production remains a variable. Ignoring selling costs:

$$S - C = I$$

But I is a loss and an impairment of capital. I cannot by any criterion be called interest. Interest implies an obligation to pay at a fixed rate a percentum on a certain date. The principal sum, the amount borrowed, is a liability. On the other hand, the proprietor's investment represents a business risk, the return or profit being determined by economic conditions. Proprietor's capital is not a liability. I, then, is either an addition or subtraction from capital. Interest on mortgage liability is a cost factor.

It is regrettable that the decimal measuring stick is confused with the interest rate. While both are percentages, one measures merely a return previously earned, the other determines the return in advance; one depends on miscellaneous investment and fluctuating markets, the other on a guaranteed agreement to make a definite return. (The interest rate is, of course, determined by supply and demand, time and the nature of the investment and security offered, but in any specific case the rate for the term of the liability is fixed in the bond.)

I conclude, therefore, that "interest" on manufacturing investment is not a factor of the cost of production. Within the bounds of economic conditions, efficient management is measured by approximation to those bounds.

\* A further discussion of this subject will be found on page 478 under "Correspondence."

## Interest on Owned Capital

BY JOHN R. WILDMAN

As to the propriety of including interest on borrowed capital as a part of selling cost there appears to be no argument. The discussion which follows concerns only interest on owned capital or that which is contributed by the proprietor. The word proprietor is used in its broadest sense without regard to the legal type of organization involved.

Economists seem generally to agree that there are four factors which produce income, namely, land, labor, capital, and business organization. The income produced is, respectively, rent, wages, interest and profits. If these facts are agreed to, the object of business organization is profit. Analyze, if you will, this profit and show how much is attributed to land as rent; how much to labor (proprietor), for the wages of management; how much to capital, as interest; and, how much to the organizer (proprietor) for his shrewdness in seeing the opportunity, skill in effecting the organization, and courage in carrying the risk which he assumes.

Base your accounting on economic principals and it will be truly scientific, but you will not have helped the business man to decide the question whether it is more profitable for him to continue in active business or retire and entrust his capital to others, taking his income as interest rather than profits. If the income on his investment in the business is, in the form of profits, 7%, whereas gilt-edge securities of other concerns will yield him but 4% it will not be a difficult matter for him to see that if he elects to take the latter he must forego income to the extent of 3% in exchange for freedom from business activity, care, worry and risk.

If you charge the business with interest for the use of money and credit the proprietor, why not continue the practice with regard to land, giving him credit for the rent, and with labor, giving him credit for wages?

No difficulty is encountered until, in continuing through legal types of organization, you reach corporations. Here you would be obliged to apportion the credit for rent among the various stockholders—likewise the interest on capital. Trouble arises

### *Treatment of Interest on Manufacturing Investment*

with wages since the stockholders are not necessarily administrative officers. Stockholders derive their income from dividends which are distributions of profits, therefore the argument against the apportionment of these items. This practice, if resorted to, has had the effect of increasing the selling cost in each instance, thereby automatically decreasing the profit. Since it is not practicable to apportion the credits corresponding to the charges for rent, interest and wages of management (provided officers and stockholders are the same) the credits are now applied to the reduction of the selling costs and the profits restored.

This it must be admitted resembles traveling in a circle and shows a certain amount of inefficiency so far as the accounting is concerned. What is true of the business as a whole must be true of its parts, so that the argument may with equal force be worked down to any machine or center of production.

In the case of copartnership interest on capital contributed is frequently charged to selling cost and credited to the partners. The matter of interest here seems to be one affecting the equalization of profits among partners on account of variations in the contribution of capital rather than one affecting the selling cost.

In the tabulations which follow, two organizations, whose operations are the same except in the matter of interest, have been compared. The first proposition shows the results in the case of a corporation or other organization where the credit offsetting the charge for interest on owned capital has been taken in as income. In the second proposition, the interest earned on owned capital has been credited to the proprietor or to surplus.

Capital	Proprietor		Proprietor	
Borrowed—5% .....	"A"	Interest	"B"	Interest
Borrowed—5% .....	\$ 50,000	Paid \$2,500	\$ 50,000	Paid \$2,500
Owned —5%.....	50,000	.....	50,000	Chgd. 2,500
Total .....	\$100,000	\$2,500	\$100,000	\$5,000

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FIRST PROPOSITION

	Proprietor "A"	Selling Cost	Proprietor "B"	Selling Cost
Sales .....	\$75,000		\$75,000	
Cost of goods sold .....	40,000	\$40,000	40,000	\$40,000
Gross profit on sales .....	\$35,000		\$35,000	
Selling and adm. expenses.....	20,000	20,000	20,000	20,000
Net profit on sales:				
Income from operations.....	\$15,000		\$15,000	
Other income:				
Interest earned on owned capital .....			2,500	*2,500
Gross income .....	\$15,000		\$17,500	
Deductions from income:				
Interest on capital charged...	2,500	2,500	5,000	5,000
(Total selling cost) .....		\$62,500		\$62,500
Net income—profit and loss...	\$12,500		\$12,500	

\* Red figure indicating a credit among debits.

SECOND PROPOSITION

	Proprietor "A"	Selling Cost	Proprietor "B"	Selling Cost
Sales .....	\$75,000		\$75,000	
Cost of goods sold .....	40,000	\$40,000	40,000	\$40,000
Gross profit on sales .....	\$35,000		\$35,000	
Selling and adm. expenses.....	20,000	20,000	20,000	20,000
Net profit on sales:				
Income from operations.....	\$15,000		\$15,000	
Deductions from income:				
Interest on capital charged...	2,500	2,500	5,000	5,000
(Total selling cost) .....		\$62,500		\$65,000
Net income—profit and loss...	\$12,500		\$10,000	
Profit and loss—credit:				
Interest earned on capital...			2,500	
Profit and loss—surplus .....	\$12,500		\$12,500	

In the first proposition, the net income is the same in each case. Assuming the selling cost to represent 100,000 units the cost per unit will in each case be 62½ cents. The net income is in each case equal to 12½% on the investment of \$100,000.

In the second proposition, the net income of "A" is \$12,500, or 12½% on the investment; "B," \$10,000, or 10%. The selling

### *Treatment of Interest on Manufacturing Investment*

costs are respectively  $62\frac{1}{2}$  cents and 65 cents per unit. Would you ask "A" to put his selling cost up to 65 cents? Would it be difficult for "A" to decide whether to continue business or retire and put his \$100,000 into 4% bonds?

Assuming it to be generally agreed that the three principal objects in ascertaining costs are to—

- (a) Determine accurate profits,
- (b) Serve as a basis for fixing selling prices,
- (c) Provide proprietors or administrative officers with information upon which to decide financial policies and guide the operations,

it would not seem difficult to decide as to which is the better of the two theories.

I should like to see in **THE JOURNAL** a discussion on the propriety of including rent, taxes, interest, insurance, etc., in manufacturing costs.

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### **Treatment of Interest**

By HERBERT M. TEMPLE

The discussion in **THE JOURNAL** relative to the treatment of interest in its relation to cost of production is of more than passing benefit to every student who is concerned in proper and correct methods of determining and treating of record the elements of the cost of production, and to those who have not had the pleasure of reading it, there is commended to their attention an article on this subject by Mr. A. LOWES DICKINSON, which appeared in the December, 1911, issue of **THE JOURNAL**. This article treats the subject very graphically.

There can be but one conclusion in regard to capitalizing interest, depreciation, obsolescence, etc., in the partly or completely ready-for-market product, and in this connection it is generally accepted that interest is not a factor to be inventoried as an element of the cost of production, but is a factor to be considered in establishing the sales or selling price of the units or elements produced. In recording and demonstrating sales realization on this basis, the units sold reveal an income in excess

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of the direct or inventoried cost sufficient to make provision for depreciation, obsolescence and returns to capital in all of its phases.

On the other hand, those industries which capitalize interest, etc., in the manufactured product, carrying the same in the inventory at such capitalized prices, not only make a most peculiar and unique disclosure in their income account, but also render themselves subject to a severe criticism when they enter the market as borrowers on credit.

## Lumber Company Accounting

BY JOHN A. McDONALD, C.P.A.

It will be generally admitted that the lumber business is one of the greatest of all the manufacturing interests of the country. The magnitude of any particular enterprise may vary from a mill with one circular saw and equipment, buzzing away in some obscure corner, to a gigantic plant comprising in its entire equipment several large mills with every variety of lumber making machinery, railroads, logging outfits, tugboats, ships, wharves, dry docks, machine shops and acres and acres of timber land. It would, therefore, be practically impossible even to outline here such accounting requirements as would be adaptable to the industry as a whole. The writer, for this reason, confines himself to a plant of a type and capacity of output frequently encountered in different parts of the country, and does so in the hope that students of accountancy, preparing for their degree, may derive some benefit.

It may be necessary to state that the exhibits and schedules given, with some changes, result from an audit actually made, but that the names and locations are fictitious and are used only for convenience.

The company is composed of three brothers incorporated under the name of the Simpson Lumber Company. The plant consists of a sawmill, planing mill, hardwood finishing mill, box factory, and dry kilns. These are located immediately adjacent to a well-known line of railroad. For this reason there are no expenses in the way of railroad maintenance and operation, chargeable in the trading account. The dry kilns are attended to by different men from the different mills, but no distribution of pay roll or other expenses in this connection has been kept during the year, and it is impossible to make it with any degree of accuracy at the year's end. These expenses have been absorbed in those of other departments. The supplies in the way of oils, files, small repair parts, etc., are kept in a building contiguous to the mill commissary and supplied to each mill on requisition.

The standing timber is located some miles from the plant.

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The logs are transported from the woods over the company's railroad and by its own equipment. It is, therefore, necessary to record with some degree of detail the expense of maintenance and operation. It will be noticed that the cost of the cut logs "in the woods" is shown as distinct from their cost "delivered at the mill." The former may be considered the prime cost of the logs and the latter the final cost.

The accounts shown on the balance sheet as standing timber might better be termed standing timber rights or standing timber leases. The company has not purchased, outright, the timber and the land on which it stands, but has purchased the privilege of cutting and using it for a term of years. These rights expire at different times and it is necessary to charge off the annual proportion of each lease as the stumpage expense. If the company owned the timber and land, however, it would be advisable if not necessary to have an expert "timber cruiser" make as accurate an estimate as possible of the standing timber, and to have a "scaler" in the woods, reporting to the office the board feet in logs cut, and use this as a measure of the stumpage consumed during the year. It would be necessary, too, to have a "scaler" at the mill entrances measuring the logs as they come into the mill to be sawed. Their reports would be used as a basis for calculating the feet, in logs, actually consumed in output. The inventory of uncut logs would be taken by the "scalers" at the end of the year and the difference adjusted.

The inventory of the unsold lumber at the end of the preceding year, as shown in the trading account, cannot be considered as accurately taken, but was accurately taken at the end of the year under review. It has been properly classified and separately valued at as close to manufacturing cost as could be ascertained under the conditions. It will be noticed that the lumber purchased from others to fill rush orders is shown separately. This makes it an easy matter for the officials to discover the extent of the sales of their own output. Attention is directed to the classification of the products sold, showing the feet of each class sold, price per thousand and value. This is a matter usually of very great interest to the proprietors and when kept year after year enables them to get an intelligent insight of comparative conditions. The system installed enables this to be done month by month.

### *Lumber Company Accounting*

It will be noticed that the depreciation in the different departments has been charged to the operating expenses of each, but that insurance has not been so charged, as it should have been had conditions permitted such distribution with any degree of accuracy.

The object in view in operating the commissaries is to relieve the mill and logging hands of the necessity of going into town to make their sundry purchases and using this as an excuse for a few days' stay. They may make reasonable purchases in advance of their earnings and have them deducted from the pay rolls. The commissaries are not operated primarily for profit, and any profit made is shown as miscellaneous income.

The schedules leading up to the surplus account show in proper order, and in what is regarded as sufficient detail, the results of operation for the period under review. This and the balance sheet show that a fair profit has been made, because the lumber industry has been in unusually flourishing condition and the standing timber cut was purchased on the basis of low prices of manufactured lumber in former years.

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EXHIBIT A

	BALANCE
	SIMPSON
	YEAR
	Dec. 31,
<b>ASSETS</b>	
<i>Fixed Assets:</i>	
Real estate .....	\$ 6,000.00
Buildings .....	16,363.81
Machinery .....	39,564.11
Tram road .....	26,514.34
Fire equipment .....	1,709.25
Tools and teams .....	2,804.13
Cottages .....	1,200.00
Office furniture and fixtures .....	427.85
Total .....	\$88,583.49
<i>Less: Depreciation reserve</i> .....	16,230.25
	72,353.24
Standing timber .....	\$45,986.21
<i>Less: Depreciation reserve</i> .....	10,418.93
	35,567.28
<i>Current Assets:</i>	
First Nat. Bank-Simpson, S. C. ....	\$ 309.63
Merchants & Planters Bank-Simpson....	1,428.97
First Nat. Bank-Richmond, Va. ....	502.18
	2,240.78
Railroad claims .....	104.26
<i>Accounts Receivable—Traders:</i>	
Foreign accounts .....	\$10,768.57
Local accounts .....	1,697.25
Total .....	\$12,465.82
<i>Less: Unpaid freight reserve</i> .....	\$1,200.00
Bad debt reserve .....	404.73      1,604.73
	10,861.09
<i>Accounts receivable—Other:</i>	
H. O. Simpson .....	\$ 5,268.92
S. H. Simpson .....	7,153.43
J. H. Simpson .....	1,595.85
	14,018.20
<i>Inventories:</i>	
Camp store merchandise .....	\$ 505.25
Mill store merchandise .....	2,272.33
Uncut logs .....	295.00
Unsold lumber .....	15,621.09
	18,693.67
<i>Deferred Charges to Operation:</i>	
Inventory—sundry supplies .....	\$ 267.79
Unearned insurance .....	1,607.02
Advances on pay rolls .....	108.91
Total .....	\$161,822.24

*Lumber Company Accounting*

EXHIBIT A

SHEET

LBR. CO.

ENDED

1912

LIABILITIES

*Current Liabilities:*

Accounts payable .....	\$ 6,451.18
Notes payable .....	<u>87,309.66</u>
Unclaimed pay rolls .....	312.00
<i>Items Accrued but not due:</i>	
Accrued taxes .....	\$ 511.45
Accrued interest .....	1,406.78
Pay rolls payable .....	<u>1,580.91</u>
	3,499.14

*Capital Stock and Surplus:*

Capital stock issued and outstanding .....	\$30,000.00
Surplus—12/31/11, as adjusted .....	\$13,753.25
Profit for year 1912 .....	20,497.01
Total .....	<u>34,250.26</u>
	64,250.26
	<u><u>\$161,822.24</u></u>

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Mr. H. O. Simpson, President,  
Simpson Lumber Co.,  
Simpson, S. C.

Dear Sir:

As requested, we have audited the accounts of the Simpson Lumber Company for the year ended December 31, 1912, and submit the result in the way of the following exhibits and schedules:

- Exhibit A—Balance sheet, December 31, 1912.
- Exhibit B—Surplus account, December 31, 1912.
- Schedule 1—Profit and loss account.
- Schedule 2—Trading account.
- Schedule 3—Statement showing cost of logs.
- Schedule 4—Statement showing cost of milling.
- Schedule 5—Details of other expenses.

The fixed assets shown on the balance sheet are shown at cost. Depreciation has been provided for by a credit to depreciation reserve account on an established rate of 10% because of the fact that it is estimated you will have only ten years' cut. This depreciation is deducted, as you will notice, from the total of the fixed assets on the debit side. A depreciation has also been provided on standing timber by a credit to a special depreciation reserve account. As against the book value of standing timber this depreciation is shown on the balance sheet in the manner above mentioned.

We have proved the accuracy of the cash in bank and on hand. We have, too, verified the accounts receivable, both local and foreign. The inventories of merchandise, etc., on hand have been accepted, as to quantities, as certified to us by your general manager. It was necessary for us, however, to establish as closely as possible the inventory values of the lumber unsold.

In the schedules in connection with exhibit B, we have attempted to show, in a clear and orderly manner, such details as are necessary to a thorough understanding of the operations of the company for the past year.

We wish to say that according to the information given us, the explanations furnished, and the examination we have made of the books and vouchers of the Simpson Lumber Company, the attached balance sheet does, in our opinion, exhibit a true and

## *Lumber Company Accounting*

correct view of the state of the company's affairs at the close of the year 1912.

Respectfully submitted,

.....  
Certified Public Accountants.

### **EXHIBIT B**

#### *Surplus Account*

##### **SIMPSON LUMBER CO., YEAR ENDED DECEMBER 31, 1912**

###### **Credits**

1911		
Dec. 31	Surplus balance this date .....	\$ 14,350.74
1912		
Feb. 29	Acct. of Merchants Gro. Co., charged off.....	432.79

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	Total .....	\$ 14,783.53
--	-------------	--------------

###### **Debits**

1912		
Jan. 1	Pay rolls previous year not charged .....	\$ 456.50
Dec. 31	Accounts previous years charged off:	
	J. C. Lent & Co. ....	\$267.59
	U. S. Lumber Co. ....	125.92
	M. H. Rickford Co. ....	180.27    573.78    1,030.28
	<i>Surplus balance as adjusted .....</i>	<i>\$13,753.25</i>
1912		
Dec. 31	Add: Profit for this year.....	20,497.01
	<i>Surplus balance—December 31, 1912.....</i>	<i>\$34,250.26</i>

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### **EXHIBIT B**

#### **SCHEDULE I**

#### *Profit and Loss Account*

##### **SIMPSON LUMBER CO., YEAR ENDED DECEMBER 31, 1912**

1912		
Dec. 31	Gross profits on sales from <i>Trading Acct.</i> .....	\$40,503.26
	<i>Deduct:</i>	
	Administration expense .....	\$6,564.22
	Office expenses .....	2,484.03
	General expenses .....	4,591.53    13,639.78
	<i>Net Operating Profit .....</i>	<i>\$26,863.48</i>

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<i>Add—Miscellaneous Income:</i>	
Profit—Camp store .....	\$608.57
Sundry rents for year .....	147.10
<hr/>	
Total .....	\$755.67
<i>Less: Loss—Mill commissary</i> .....	313.37
<hr/>	
<i>Gross profits for year</i> .....	\$27,305.78
 <i>Deduct—Charges against Profits:</i>	
Reserve for bad accounts .....	\$ 404.73
Taxes for year .....	587.90
Interest—Notes and accounts .....	5,816.14
<hr/>	
<i>Net profit for year (see Exhibit A)</i> .....	\$20,497.01
<hr/>	

EXHIBIT B

SCHEDULE 2

*Trading Account*

**SIMPSON LUMBER Co., YEAR ENDED DECEMBER 31, 1912**

<b>1911</b> Dec. 31	Inventory of lumber on hand .....	\$ 9,848.84
<b>1912</b> Dec. 31	<i>Add: Cost of products manufactured in 1912</i> .....	96,162.69
	<hr/>	
	Total cost .....	\$106,011.53
	<i>Deduct Inventories as below:</i>	
	Oak .....	25,070 feet \$ 601.68
	Sweet gum .....	57,730 " 2,318.60
	Black gum .....	115,000 " 1,340.00
	Heading .....	335,270 " 3,352.70
	Cypress .....	186,260 " 3,113.96
	Pine .....	302,983 " 4,894.15 15,621.09
	<hr/>	
	<i>Cost of Company's products sold</i> .....	\$ 90,390.44
	<i>Add—Lumber purchased from others:</i>	
	Pine .....	114,476 feet \$1,408.40
	Heading .....	20,925 " 334.80
	Poplar .....	28,569 " 571.30 2,314.50
	<hr/>	
	<i>Total cost of products sold during year</i> .....	\$ 92,704.94
	 <i>Credits</i>	
	 <i>Sales during the year:</i>	
	Pine .....	4,284,726' @ 24.64 \$105,575.83
	Heading .....	1,602,837' @ 16.62 28,140.67
	Sweet gum .....	85,077' @ 14.79 1,258.45
	Black gum .....	215,179' @ 22.38 4,816.84
	Poplar .....	713,747' @ 21.61 15,425.70
	Cypress .....	283,137' @ 25.94 7,343.93
	Other .....	53,089' @ 27.90 1,499.92
	Wood .....	1,576.09
	<hr/>	
	<i>Total</i> .....	7,328,392' @ 22.38 165,637.49

## *Lumber Company Accounting*

### *Deduct—Allowances and Selling Expense:*

Allowances .....	\$ 1,593.21
Commissions .....	6,369.18
Freight .....	<u>24,466.90</u>
	<u>32,429.29</u>

*Net proceeds from sales.....\$133,208.20*

*Gross profit on sales for the year .....\$ 40,503.26*

## **EXHIBIT B**

### **SCHEDULE 3**

#### **Statement**

**SHOWING COST OF LOGS IN WOODS, ALSO COST OF LOGS DELIVERED AT MILL  
YEAR ENDED DECEMBER 31, 1912**

*Stumpage for year .....\$ 5,748.27*

#### *Logging Expenses:*

Wages .....	\$22,137.58
Supplies .....	3,214.71
Sundry expenses .....	<u>44.59</u>
	<u>25,396.88</u>

*Depreciation—Teams and tools .....280.41*

*Cost of logs in woods .....\$31,425.56*

#### *Railroad Maintenance:*

Wages .....	\$ 3,448.24
Supplies .....	107.45
Timber for trestle .....	26.67
Spikes .....	170.03
Ties .....	<u>30.20</u>
	<u>3,782.59</u>

#### *Railroad Operation:*

Wages .....	\$ 3,200.05
Coal—536½ tons .....	\$ 714.41
Freight .....	<u>1,233.48</u>
	<u>1,947.89</u>

Engines—repairs .....	1,301.77
Cars—repairs .....	188.40
Car grease .....	97.67
Sundry supplies .....	573.24
Sundry expenses .....	<u>80.34</u>
	<u>7,389.36</u>

*Dep'n—road and equipment .....2,651.43*

*Cost of logs delivered at the mill .....\$45,248.94*

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EXHIBIT B

SCHEDULE 4

Statement

COST OF MILLING DURING YEAR 1912

*Cost of logs delivered at mill—from previous statement.....\$45,248.94*

*Sawmill Operating Expenses:*

Wages .....	\$21,157.50
General supplies .....	3,156.01
Band saws .....	342.00
Steam feed .....	383.74
Hog repairs .....	164.35
Engine repairs .....	167.05
Saw repairs .....	71.22
Belting .....	67.55
Flue hammer .....	80.00
Chains .....	167.65
Emery wheels .....	20.74
Sundry repairs .....	196.41
Sundry expenses .....	70.96
	<u>26,045.18</u>
S/M depreciation .....	<u>3,457.67</u>

*Planing Mill Operation Expenses:*

Wages .....	\$11,825.66
Sundry supplies .....	1,790.00
Sundry expenses .....	<u>76.28</u>
	<u>13,691.94</u>

P/M depreciation .....

*Hardwood Mill Operation Expenses:*

Wages .....	\$ 4,321.80
Supplies .....	<u>575.11</u>

H/M depreciation .....

*Box Factory Operation Expenses:*

Wages .....	\$ 334.25
Supplies .....	<u>44.17</u>

B/F depreciation .....

*Cost of Manufactured products .....*

\$96,162.69

## *Lumber Company Accounting*

### EXHIBIT B

#### SCHEDULE 5

#### *Expense Details*

SIMPSON LUMBER CO., YEAR ENDED DECEMBER 31, 1912

##### *Administrative Expenses:*

Officers' salaries .....	\$ 5,587.86
Telegrams .....	102.19
Telephone .....	70.55
Legal expenses .....	125.00
Livery expense .....	40.72
Traveling expense .....	162.85
Auto repairs and supplies .....	475.05
<i>Total administrative expenses.</i> .....	<u>\$ 6,564.22</u>

##### *Office Expenses:*

Office salaries .....	\$ 1,554.52
Exchange—foreign drafts .....	3.60
Adding machine repairs .....	25.00
Postage .....	78.04
Printing and stationery .....	81.26
Advertising .....	137.37
Depreciation—office fixtures .....	43.21
Auditors' fees and expenses .....	561.03
<i>Total office expenses</i> .....	<u>\$ 2,484.03</u>

##### *General Expenses:*

Association dues .....	\$ 96.00
Accidents .....	64.20
Survey of mill lands, etc. ....	502.28
Timber estimating .....	605.33
Trade journals .....	11.75
Excise tax .....	15.00
Recording fees .....	16.15
Charity—donations .....	55.97
Sundry expenses .....	104.75
Insurance .....	3,120.10
<i>Total general expenses</i> .....	<u><u>\$ 4,591.53</u></u>

# The Journal of Accountancy

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## EDITORIAL

### Spread and Effect of Accountancy Legislation

The current year is likely to go down to posterity with a record of many things accomplished—some desirable, others not quite all that might be desired—and in particular the 1913 record of legislation is notable although the year is only at its half-way stage. Leaving out of consideration the crucial enactments affecting the fiscal policy of the nation and the equally vital legislative acts of some of the states it may be pardonable for this magazine of accountancy to pause and discuss briefly the enactment of legislation in the several states bearing on the accountancy profession and its status in the community.

So far this year six states have written certified public accountant laws on their statute books and even with that number of enactments to its credit, 1913 has exceeded the accomplishments of all its predecessors. The closest second in the race is 1909 when five states joined the ranks of progressive (we use the word without political prejudice) communities. This year Oregon, Tennessee, North Carolina, Delaware, Wisconsin and North Dakota have accepted the theory that there should be an official recognition of qualified accountants exactly as there should

### *Editorial*

be and long has been governmental regulation of the practice of medicine and law. Legislation of a similar character is pending in three or four states and the probability is that by the time this year's legislative sessions are ended the number of states having C. P. A. laws will have been considerably increased. At the present time thirty states have certified public accountant laws on their books. And yet it is only seventeen years since the first law of this kind was passed by the legislature of New York—truly a remarkable development in so short a time, but not cause for astonishment when it is borne in mind how rapid has been the advance of the accounting profession in the same time.

But there are some aspects of the spread of C. P. A. legislation which are not agreeable and call for the careful attention of every accountant in the country.

It is almost inevitable that in the haste to enact laws providing for the certification of accountants there should be written many a serious error which would lead to injury to the profession which it was the ostensible purpose to assist. Legislators have long been recognized as fallible and most fallible when it comes to matters of which they can know little or nothing. Accountancy is such a matter; and accordingly it is not astonishing that the legislation for accountancy should contain some foolish and some pernicious clauses. Moreover, there have been many instances in which private ambitions have guided the course of accountancy bills—instances in which some accountant, recognizing the increasing value of the right to affix the initials C. P. A. to his signature, has pushed through the legislature of his state a bill lax in its provisions and dangerous in its intent by means of which he, the promoter, would become eligible for official recognition without prior qualification or examination.

On account of these two causes—ignorance and self interest—several wretched laws have been enacted in the states. Their waiver clauses have been ridiculously broad and all embracing, and by means of these waivers has come into the company of accountants a regrettably numerous band of inefficients. But it is pleasant to relate that the day of the bad law is passing. Stout opposition to the unsatisfactory sort of legislation is made by the American Association of Public Accountants, and although now and then an undesirable law may slip through in some out-

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of the way corner of the country, the general tendency of the latest laws is toward more rigid provisions and less elastic waivers.

The effect of this is seen in the fact that of the six laws enacted this year at least five are such as will bear the approval of the national organization. The sixth was passed without any word of warning and inasmuch as the American Association was not consulted, the result is not what is desired. Yet these unfortunate laws will be amended sooner or later, as legislators are brought to see the necessity of effectual control of the accountancy profession and when the public comprehends that upon the accountant rests so important a share of the burden of commercial responsibility that no law not adequately preventive of inefficiency will be tolerable. Revision and amendment are slow processes but it may not be erring on the side of optimism to predict that the evil features of most of the state laws dealing with accountancy will have been altered before the next five years have passed. It is gratifying to state further that while a large number of unqualified men came into the possession of certificates under one or another of the almost universal waiver clauses, the vast majority of these have given up such practice as they previously had, and therefore will work no more injury to the profession. As the standards of accountancy are raised and the demand of the public becomes confined to the best it is certain that the worst will find itself without a foothold.

Now, assuming, for the sake of argument, that the laws will be well revised and that no other states will fall into errors such as have gone before, is it safe to consider that the protection of the certified public accountant is complete? Assuredly it is not. The laws may be never so faultless; their provisions may apply only to the qualified; and to all appearance the public may rest secure in the thought that no one can obtain the degree without thorough investigation and demonstration of his integrity and ability—and yet despite all seeming perfection the whole law may be maleficent in its effect if there be not an honest and consistent application of its provisions.

Every accountancy law in the country provides for the examination of candidates and almost all specify the subjects in which examinations must be made—yet what of that if the examiners be wilfully or ignorantly ready to set absurd questions

### *Editorial*

and to accept as correct equally absurd answers? It is easy to conceive an examination that would be no great obstacle to anyone outside the nursery. True it is that the laws as a rule call for examiners of fairly high attainments, but the power of appointment is with the governors or with state institutions of learning unadvised by the profession most concerned, and while that condition prevails it is not marvelous that some of the examiners are ill-fitted to their positions.

This brings us to the heart of the whole matter. It is with the appointing power that the fault or the merit lies and it is upon the shoulders of some of our governors that we find the burden of responsibility for grave mistakes in selection.

The remedy? Well, there's the difficulty. It is a simple matter to criticise destructively and constructive criticism is ever the harder task; but it seems to us that the first care should be to ameliorate the present ills and afterward to eradicate them. The prime object, therefore, should be to impress upon the appointing authority—whether it be governor or college—the paramount need for cautious selection and to urge the observance of those safeguards which the law intends. This may be done if it be gone about in the right manner.

To eradicate the fault, however, will be more arduous and will call for a wide-spreading campaign. The way lies in the recognition of accountancy bodies, such as state societies, affiliated with the national body and in provision for nomination of board members by those bodies. The state society—it being understood that the right obtain only with the society recognized by the national association—should be required by law to name, let us say, three candidates for every vacancy as it occurs in the state board. Let the choice of the man rest, if you will, with the governor or the university, but that choice should be limited to one of the candidates approved by the state society. By this means unless the whole society were dominated by professional obliquity, the public would be protected from the appointment of unqualified examiners and the standards and meaning of certified public accountancy laws would be strengthened and made clear. Already there is an inclination in many states to appoint members of the national association to fill vacancies in state boards and it is not a counsel of the unattainable to urge full coöperation between the governmental and accounting authorities.

In states where there is no state society the matter would be adjusted differently, but it has ever been the contention of the more prominent men in the profession that the society should precede the law, partly for the very reason that such order of progression makes for better protection against weak laws and ill-advised appointments with all the host of evils that may follow upon such conditions.

---

### The New York Reciprocity Clause

Accountants in many parts of the country, as well as in New York, will learn with a deal of gratification that the long sought enactment of a reciprocal clause in the accountancy law of this state at length is realized. We may not regard the wording of the law as wholly satisfactory, but it is certainly a step in the right direction and as such it should be welcome.

An anomalous condition of affairs has prevailed for many years in this state in that a large percentage of the practising accountants here have been certified public accountants of other states; and while there was no reciprocity clause in the New York law it was impossible for these accountants to obtain the New York degree, which many of them felt they should hold while practising in this state, unless they elected to take the examination prescribed by the New York board—an alternative not seriously to be considered by men who had already fulfilled the requirements of other boards.

Under the new law the question of what shall be considered the equivalent of the New York standard rests with the regents of the university, and we have no doubt that the decision of that body will be uninfluenced by any political or partisan feeling.

We are confident that the accountants of New York will accord a hearty greeting to those members of the profession practising here who desire to take advantage of the recently granted opportunities.

## Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

### PROBLEM No. 18 (DEMONSTRATION)

The Central Furniture Company was incorporated under the laws of the state of New York on July 1, 1912, with an authorized capital stock of \$2,000,000, divided into 10,000 shares of preferred of the par value of \$100 each, and 20,000 shares of common of the par value of \$50 each, for the purpose of effecting a consolidation of three companies engaged in the manufacture of furniture and furniture parts. There was also authorized an issue of 5% collateral trust bonds, to be dated July 1, 1912, to the extent of \$1,000,000.

The consolidation was promoted and managed by the Syndicate Trust Company, which prior to July 1st caused an investigation to be made of the accounts of the various companies; the properties to be appraised; secured options upon the stock and made contracts with the holders thereof. It was stipulated in the contract between the trust company and the newly organized furniture company that the former should receive for its services 10% of the par value of the preferred stock issue, in stock, and should advance the cash necessary to pay the bonus to the stockholders of the consolidating companies, recovering the advances out of the proceeds of bond sales when same were issued.

The balance sheets of the consolidating companies on May 31, 1912, were as follows:

<i>Assets</i>	The Riverton Furniture Company	The Chat- terton Chair Company	The Irvington Cane Seat Company
Land and buildings .....	\$ 643,789.42	\$432,548.52	\$875,419.17
Equipment .....	85,321.88	47,997.22	90,405.74
Motor trucks .....	8,500.00	5,000.00	7,800.00
Furniture and fixtures .....	15,132.69	10,547.86	12,532.52
Securities owned .....	(a) 52,987.50	(b) 72,827.25	(c) 40,000.00
Patents, trade-marks and goodwill	25,000.00	25,000.00	45,250.00
Materials and supplies .....	18,943.26	20,617.32	19,437.62
Goods in process .....	7,562.89	12,881.23	15,258.45
Finished goods .....	22,713.48	14,683.04	11,138.12
Cash .....	30,343.75	23,387.92	27,287.47
Accounts receivable .....	(d) 125,486.29	(e) 112,783.48	(f) 102,651.43
Notes receivable .....	(g) 15,237.80	11,624.49	12,132.19
Accrued interest on securities...	125.00	500.00	250.00

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Sinking fund .....	43,274.13		
Organization expense .....	4,750.00	5,125.00	2,525.00
Moving expense .....		1,275.00	
Insurance unexpired .....	325.00	273.14	526.19
<b>Total assets .....</b>	<b>\$1,099,493.09</b>	<b>\$797,071.47</b>	<b>\$1,262,613.90</b>
<i>Liabilities and Capital</i>			
First mortgage bonds .....	\$ 300,000.00		
Bond and mortgage payable .....		\$250,000.00	\$500,000.00
Taxes accrued .....	3,275.00	2,500.00	4,385.00
Salaries and wages accrued .....	1,327.50	847.25	3,127.23
Accounts payable .....	(h) 103,843.87	(j) 97,981.14	(k) 98,417.45
Notes payable and interest.....	61,328.43	(l) 45,621.29	76,818.54
Interest accrued on bonds.....	6,000.00		
Interest accrued on debentures..			5,000.00
Interest accrued on bond and mortgage .....		3,000.00	
Reserve for depreciation, build- ings and equipment .....	148,718.29	200,000.00	225,237.15
Preferred capital stock—par \$100.	250,000.00		200,000.00
Common capital stock—par \$100.	175,000.00	100,000.00	100,000.00
Profit and loss surplus .....	50,000.00	97,121.79	49,628.53
<b>Total liabilities and capital</b>	<b>\$1,099,493.09</b>	<b>\$797,071.47</b>	<b>\$1,262,613.90</b>

(a) Includes 50 shares of the Chatterton Chair Company acquired at 102 1/4.  
 (b) Includes 40M Ann Arbor, 1st g. 4's at 80. (c) Includes 25M Riverton 1st  
 mortgage bonds at par. (d) Includes \$613.95 due from the Chatterton Chair  
 Company. (e) Includes \$2,847.92 due from the Irvington Cane Seat Company.  
 (f) Includes \$1,532.17 due from the Riverton Furniture Company. (g) Includes  
 \$5,125.75 notes and interest of the Chatterton Chair Company. (h) Includes  
 \$1,532.17 due to the Irvington Cane Seat Company. (j) Includes \$613.95 due to  
 the Riverton Furniture Company. (k) Includes \$2,847.92 due to the Chatterton  
 Chair Company. (l) Includes \$5,125.75 notes payable and interest in favor of  
 the Riverton Furniture Company.

On July 1st, the stock of the Central Furniture Company was issued to the Syndicate Trust Company in blank, the latter taking up the stocks of the consolidating companies in accordance with the contracts. Preferred stockholders of the Riverton Furniture Company received one share of preferred, two shares of common and 25% in cash; common stockholders, two shares of common and 15% in cash. Stockholders of the Chatterton Chair Company received four shares of common and 40% in cash. Preferred stockholders of the Irvington Cane Seat Company received one share of preferred, two shares of common and 25% in cash; common stockholders, three shares of common and 10% in cash.

Upon receipt of the stocks of the subsidiary companies, they were deposited with a trustee and \$500,000 collateral trust 5% bearer bonds were issued to the Syndicate Trust Company. The bonds were sold at an average price of 97. The balance of the preferred stock was sold at an average price of 90, after which

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the trust company made its accounting, returning the balance of common stock unsold. The trust company sold the stock received as a commission at 90.

Prepare:

- (a) Consolidated balance sheet of the three companies, May 31, 1912.
- (b) General balance sheet the Central Furniture Company, July 31, 1912.

---

SOLUTION TO PROBLEM No. 18

The requirements of this problem are that there shall be a consolidated balance sheet of the three companies at May 31, 1912, and a balance sheet of the Central Furniture Company after the opening entries have been made. At first glance these might seem to be the same thing. If the situation is analyzed they will be found quite different. The consolidated balance sheet was presumably prepared prior to the actual organization of the Central Furniture Company as a basis for determining principally what the capitalization would need to be. It will also have been observed in reading the problem that the Central Furniture Company was to be a holding company, maintaining control of the three underlying companies through stock ownership and deriving its income from dividends on stocks and interest on bonds. Consequently the detailed assets and liabilities of the three companies will not appear on the books of the holding company, their place being taken by the investments in securities.

As a matter of law, "any two or more corporations organized for the purpose of carrying on any kind of business of the same similar nature which a corporation organized under the business corporations law might carry on, may consolidate into a single corporation." No previous cross-ownership is necessary here as in the case of a merger. It is probably true that the holders of the stock of the companies about to be consolidated might pool their interests and select representatives without giving up or in any way changing the status of their stock. It makes a much cleaner matter of it, however, to organize a new corporation, the capital stock of which is used to exchange for and take up the capital stock of the consolidating companies.

The exchange of stock is not always par for par. The

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consolidation may have originated with stockholders of the constituent companies who have seen an opportunity for mutual advancement and profit, or it may have originated with some promoter who has seen an opportunity for himself in bringing about the consolidation. In the first instance various classes of stock may give to the respective holders varying degrees of power. Holders of preferred stock may be loath to give up such stock unless they receive stock of equal strength in the new company. In the second case certain stockholders will not, perhaps, give up their old stock without additional incentive in the form of cash. Further, it may be necessary to give a stock or cash bonus in order to equalize the settlements among stockholders of the various companies on account of goodwill, surplus, franchises carried at a nominal figure or not shown, patents and trade-marks carried in the same way, and various other attachments which a par for par exchange would ignore. It therefore happens that all sorts of plans are contrived, all having as their prime purpose a distribution which will be equitable and satisfactory to all concerned.

In the problem under discussion the first requirement is a consolidated balance sheet of the three companies May 31, 1912. Before this can be prepared a consolidated trial balance or working sheet is necessary. Incident to its preparation, there must be taken into consideration the accounts between companies. What might be a perfectly good asset as long as someone else owns a certain business becomes valueless if perchance you, happening to be the debtor which the asset represents, should purchase the business in question. So in the case of a consolidation, what was formerly a debt owing by one company to another loses its value when the accounts of the two companies are put together.

Examples of such accounts are, capital stock, bonds, accounts receivable and payable, notes and interest receivable and payable, loans and advances, inter-company sales, rent, etc. The danger of duplicating these inter-company transactions is avoided in consolidated working sheets or trial balances by the introduction of an elimination column. The operation of this as well as the illustration of the above mentioned peculiarities common to consolidation will be seen from the consolidated trial balance appearing below:

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**CONSOLIDATED TRIAL BALANCE OF THE RIVERTON FURNITURE COMPANY,  
THE CHATTERTON CHAIR COMPANY AND THE IRVINGTON  
CANE SEAT COMPANY**

MAY 31, 1912, AFTER CLOSING

<i>Debits</i>	Total	Eliminations	The Riverton Furniture Company	The Chatterton Chair Company	The Irvington Cane Seat Company
Land and buildings .....	\$1,951,757.11		\$ 643,789.42	\$432,548.52	\$ 875,419.17
Equipment .....	223,724.84		85,321.88	47,997.22	90,405.74
Motor trucks .....	21,300.00		8,500.00	5,000.00	7,800.00
Furniture and fixtures .....	38,213.07		15,132.69	10,547.86	12,532.52
Securities owned .....	135,689.75	(ao)	\$30,125.00	(a) 52,987.50	(b) 72,827.25
Patents, trade-marks and goodwill .....	95,250.00		25,000.00	25,000.00	45,250.00
Materials and supplies.....	58,998.20		18,943.26	20,617.32	19,437.62
Goods in process .....	35,702.57		7,562.89	12,881.23	15,258.45
Finished goods .....	48,534.64		22,713.48	14,683.04	11,138.12
Cash .....	81,019.14		30,343.75	23,387.92	27,287.47
Accounts receivable .....	336,127.16	(def)	4,794.04	(d) 125,486.29	(e) 112,783.48
Notes receivable .....	33,868.73	(g)	5,125.75	(g) 15,237.80	11,624.49
Accrued interest on securities .....	875.00		125.00	500.00	250.00
Sinking fund .....	43,274.13		43,274.13		
Organization expense .....	12,400.00		4,750.00	5,125.00	2,525.00
Moving expense .....	1,275.00			1,275.00	
Insurance unexpired .....	1,124.33		325.00	273.14	526.19
<b>Total debits .....</b>	<b>\$3,119,133.67</b>		<b>\$40,044.79</b>	<b>\$1,099,493.09</b>	<b>\$797,071.47</b>
 <i>Credits</i>					
First mortgage bonds .....	\$ 275,000.00	(n)	\$25,000.00	\$ 300,000.00	
Debentures .....	500,000.00				\$ 500,000.00
Bond and mortgage payable .....	250,000.00			250,000.00	
Taxes accrued .....	10,160.00		3,275.00	2,500.00	4,385.00
Salaries and wages accrued .....	5,301.98		1,327.50	847.25	3,127.23
Accounts payable .....	295,448.42	(hjk)	4,794.04	(h) 103,843.87	(j) 97,981.14
Notes payable and interest..	178,642.51	(l)	5,125.75	61,328.43	(l) 45,621.29
Interest accrued on bonds..	6,000.00		6,000.00		
Interest accrued on debentures .....	5,000.00				5,000.00
Interest accrued on bond and mortgage .....	3,000.00			3,000.00	
Res. depn. bldgs. and equip..	573,955.44		148,718.29	200,000.00	225,237.15
Preferred capital stock.....	450,000.00		250,000.00		200,000.00
Common capital stock .....	370,000.00	(m)	5,000.00	175,000.00	100,000.00
Profit and loss surplus ....	196,625.32	(m)	125.00	50,000.00	97,121.79
<b>Total credits .....</b>	<b>\$3,119,133.67</b>		<b>\$40,044.79</b>	<b>\$1,099,493.09</b>	<b>\$797,071.47</b>

(a) Includes 50 shares Chatterton Chair Co. at 102 1/4. (o) Includes 25M Riverton first mortgage bonds at par. (d) Includes \$618.95 due from the Chatterton Chair Co. (e) Includes \$2,647.92 due from the Irvington Cane Seat Company. (f) Includes \$1,532.17 due from the Riverton Furniture Company. (g) Includes \$5,125.75 notes and interest of the Chatterton Chair Company. (h) Includes \$1,582.17 due to the Irvington Cane Seat Company. (j) Includes \$618.95 due to the Riverton Furniture Company. (k) Includes \$2,647.92 due to the Chatterton Chair Co. (l) Includes \$5,125.75 notes payable and interest in favor of the Riverton Furniture Co. (m) 50 shares of Chatterton stock at 102 1/4 held by the Riverton Chair Co. (n) 25M bonds of the Riverton Chair Co. held by the Irvington Cane Seat Co.

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The elimination will, after reference to the respective footnotes, presumably be clear with the possible exception of the adjustment of the surplus in the amount of \$125. This occurs by reason of the fact that in the securities owned by the Riverton Furniture Company there appear 50 shares of the Chatterton Chair Company carried at 102½ or \$5,125, while the par value of the stock as shown by the Chatterton Chair Company is \$5,000. While the stock in question may have cost the Riverton Furniture Company \$5,125 and the stock as evidenced by the surplus of the Chatterton Chair Company may be worth said amount, it is apparent that the premium increases the surplus of the Riverton Furniture Company, and that in putting the two companies together and eliminating the stock the premium must be offset against the combined surplus.

Owing to the fact that the books of the companies about to be merged have been closed before taking off the trial balance and consequently no nominal accounts appear, to present a consolidated balance sheet may smack of duplication, since the items in the balance sheet will be the same as the combined items in the trial balance after eliminating the offsets. The consolidated balance sheet is presented nevertheless in order that the difference between it and the subsequent balance sheet of the Central Furniture Company may be strongly apparent. The consolidated balance sheet is as follows:

*Department of Practical Accounting*

**THE RIVERTON FURNITURE COMPANY, THE CHATTERTON  
CHAIR COMPANY AND THE IRVINGTON CANE  
SEAT COMPANY**

CONSOLIDATED BALANCE SHEET, MAY 31, 1912

<i>Assets</i>	<i>Liabilities and Capital</i>
Land and buildings ...\$1,951,757.11	Capital stock:
Equipment ..... 223,724.84	Preferred ..... \$ 450,000.00
Motor trucks ..... 21,300.00	Common ..... 370,000.00
Furniture and fixtures. 38,213.07	Total capital stock. \$ 820,000.00
Securities owned ..... 135,689.75	First mtge. bonds... 275,000.00
Patents, trade-marks and goodwill ..... 95,250.00	Bonds and mtge. pay- able ..... 250,000.00
Working and trading assets:	Debentures ..... 500,000.00
Materials and sup- plies ..... \$ 58,998.20	Current liabilities:
Goods in process.... 35,702.57	Taxes accrued ..... \$ 10,160.00
Finished goods .... 48,534.64	Salary and wages accrued ..... 5,301.98
Total working and trading assets ..\$ 143,235.41	Accounts payable ... 295,448.42
Current assets:	Notes payable and interest ..... 178,642.51
Cash ..... \$ 81,019.14	Int. accrued on bonds 6,000.00
Accounts receivable.. 336,127.16	Int. accrued on b/m. 3,000.00
Notes receivable .... 33,868.73	Int. accrued on de- bentures ..... 5,000.00
Acct. int. on securities 875.00	Total current lia- bilities ..... \$ 503,552.91
Total current assets.\$451,890.03	Reserve for deprecia- tion:
Sinking fund ..... 43,274.13	Buildings and equip- ment ..... 573,955.44
Deferred charges to ex- pense:	Profit and loss surplus. 196,625.32
Organization expense\$ 12,400.00	
Moving expense .... 1,275.00	
Insurance unexpired. 1,124.33	
Total deferred chgs. to expense .....\$ 14,799.33	
Total assets ....\$3,119,133.67	Total liabilities and capital ..... \$3,119,133.67

The consolidated balance sheet affords the promoters a basis for planning the capitalization of the holding companies and the consolidated trial balance shows the standing of the respec-

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tive companies. The latter serves as a basis for settlement with the stockholders. While the entries covering the exchange of stock will appear in their historical order among the others, it may be of interest to glance at the following tabulation for the purpose of seeing how much stock and cash the stockholders of the respective companies will receive under the proposed plan as well as how much preferred and common stock and cash will be needed to meet the combined requirements:

	Total	Pfd.	Common	Cash
<b>Riverton</b>				
Preferred stockholders:				
2500 sh. X 1 pfd. (\$100 par) .....	\$250,000	\$250,000		
2500 sh. X 2 com. (\$50 par) .....	250,000		\$250,000	
\$250,000 X 25% cash .....	62,500			\$ 62,500
Total preferred stockholders.....	\$562,500			
Common stockholders:				
1750 sh. X 2 com. (\$50 par) .....	\$175,000		175,000	
\$175,000 X 15% cash .....	26,250			26,250
Total common stockholders .....	\$201,250			
<b>Chatterton</b>				
Common stockholders:				
1000 sh. X 4 com. (\$50 par) .....	\$200,000		200,000	
\$100,000 X 40% cash .....	40,000			40,000
Total common stockholders .....	\$240,000			
<b>Irvington</b>				
Preferred stockholders:				
2000 sh. X 1 pfd. (\$100 par) .....	\$200,000	200,000		
2000 sh. X 2 com. (\$50 par) .....	200,000		200,000	
\$200,000 X 25% cash .....	50,000			50,000
Total preferred stockholders.....	\$450,000			
Common stockholders:				
1000 sh. X 3 com. (\$50 par).....	\$150,000		150,000	
\$100,000 X 10% cash .....	10,000			10,000
Total common stockholders.....	\$150,000			
<i>Grand total</i> .....	\$1,613,750	\$450,000	\$975,000	\$188,750

In the journal entries, covering the opening of the books of the Central Furniture Company which follow, the explanations appear to be sufficient in most cases to make the entries clear. In the case of organization expense, however, a word or two may be necessary. The amount of \$145,000 is made up of two

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items, namely \$100,000 as commission to the trust company for services and \$45,000 representing the discount allowed by the trust company on the preferred stock. To show this latter item on the books as such would appear to be an admission on the part of the company, in the circumstances, that the stock in question was not full-paid when issued and the corresponding legal liability would therefore attach to the holders of the stock. Since it is not the intention to place any such liability upon stockholders but rather to increase the compensation to the trust company to allow for such contingencies the organization expense representing commissions allowed to the trust company is correspondingly increased.

Preferred capital stock unissued .....	\$1,000,000
Common capital stock unissued .....	1,000,000
To preferred capital stock authorized.....	\$1,000,000
Common capital stock authorized .....	1,000,000
 To record the organization of the Central Furniture Company, incorporated under the laws of the state of New York on July 1, 1912, with an authorized capital stock of \$2,000,000 divided into 10,000 shares of pre- ferred of the par value of \$100 each and 20,000 shares of common of the par value of \$50 each.	
The Syndicate-Trust Company .....	2,000,000
To preferred capital stock unissued .....	1,000,000
Common capital stock unissued .....	1,000,000
 For capital stock issued in blank to the Syn- dicate-Trust Company.	
Five per cent collateral trust bonds unissued .....	1,000,000
To five per cent collateral trust bonds au- thorized .....	1,000,000
 Provision for issue of five per cent collateral trust bonds authorized as of July 1, 1912.	
The Syndicate-Trust Company .....	500,000
To five per cent collateral trust bonds unissued	500,000
 For bonds issued to the Syndicate-Trust Company for sale.	
Common capital stock unissued .....	25,000
Organization expense .....	145,000
Discount on bonds .....	15,000
Riverton Furniture Co.—pfid. stock, 2500 sh.....	562,500
Riverton Furniture Co.—com. stock 1750 sh.....	201,250
Chatterton Chair Co. —com. stock 1000 sh.....	240,000

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Irvington Cane Seat Co.—pf. stock 2000 sh.....	450,000
Irvington Cane Seat Co.—com. stock 1000 sh.....	160,000
Cash .....	701,250
To the Syndicate-Trust Co. ....	2,500,000

To account for preferred and common stock and bonds turned over to the Syndicate Trust Company.

## THE CENTRAL FURNITURE COMPANY

**GENERAL BALANCE SHEET, JULY 31, 1912**

It will be noted that in the balance sheet the stocks have been grouped under the title of securities owned rather than shown in detail, since a general balance sheet is asked for. As a matter of further interest, the stocks of the underlying companies will be seen to have lost their identity, in so far as the par is concerned, having been taken up at their cost in par of the stock and cash of the parent company. The latter will in the future take its earnings from subsidiaries through dividends.

**PROBLEM No. 18-A (PRACTICE)**

From the text and demonstration of problem No. 18, prepare:

- (a) Journal entries relating to the consolidation, as they appeared on the books of the Syndicate Trust Company.
  - (b) Skeleton ledger accounts of the Syndicate Trust Company.

## New York C. P. A. Examinations of January, 1913

ANSWERS BY PAUL-JOSEPH ESQUERRÉ, C.P.A.

### PRACTICAL ACCOUNTING—PART II

#### QUESTION 4

James Stetson is appointed trustee of the manufacturing business of John Brightlawn, for the purpose of rehabilitation. On taking charge he finds that the available assets are: cash in bank, \$356; accounts receivable, (a) good, \$3,712; (b) probably uncollectible, \$350. The working and trading assets consist of: raw materials, \$17,258; sundry manufacturing supplies, \$700; finished goods, \$8,000; goods in process, \$30,945.70. Other assets comprise: machinery and machine tools, \$41,000; shop and hand tools, \$1,300; deferred debits to manufacturing, \$530. The liabilities are: creditors' account, \$39,700; wages accrued, productive \$500, unskilled \$230.

The transactions under the trusteeship are as follows: Loaned by creditors for immediate needs, \$7,000. Purchased on book accounts: raw materials, \$8,300; sundry manufacturing supplies, \$9,500. Factory expense: paid in cash, \$1,300; incurred as a liability to creditors and subsequently liquidated, \$2,100. The doubtful accounts receivable proved worthless. Cash paid for: productive labor, \$16,000; unskilled labor, \$2,500; general expense, \$8,000; additional shop tools, \$609; freight inward, on raw materials manufactured and sold, \$60. Interest allowed to creditors on their accounts amounted to \$143.10. The trustee advanced \$4,300 to John Brightlawn on account of expected profits; the sales of finished wares amounted to \$91,000.

At the close of the trusteeship, the trustee's books show the working and trading assets to be: finished goods, \$11,000; goods in process, \$10,450; raw materials, \$1,945.70; manufacturing supplies, \$395.25. There is besides an amount of \$750.10 representing factory expenses unapplied. The creditors' accounts show a balance of \$1,650.30, while the uncollected accounts receivable amount to \$2,975.36. The shop and hand tools amount to \$1,609.

Prepare an account which, while respecting the fiduciary character of the relations of the trustee and of the proprietor of the business, will reflect logically and clearly the result of J. Stetson's administration.

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ANSWER TO QUESTION 4

SUMMARY OF THE ADMINISTRATION

OF THE BUSINESS OF JOHN BRIGHTLAWN, BY JOHN STETSON, TRUSTEE

*Assets taken over:*

Cash .....	\$ 356.00
Accounts receivable .....	4,062.00
Raw materials .....	17,258.00
Manufacturing supplies .....	700.00
Finished goods .....	8,000.00
Goods in process .....	30,945.70
Machinery and machine tools....	41,000.00
Shop and hand tools .....	1,300.00
Deferred debits to manufacturing:	
Factory overhead expense.....	530.00
Total .....	<u>\$104,151.70</u>

*Liabilities to be liquidated:*

Creditors' accounts .....	\$ 39,700.00
Wages accrued .....	730.00
Total .....	<u>\$ 40,430.00</u>

*New assets obtained during trusteeship and increases of assets included in original inventory:*

Raw materials and freight thereon	\$ 8,360.00
Manufacturing materials and supplies .....	9,500.00
Labor on goods manufactured....	17,770.00
Factory overhead on goods manufactured .....	3,400.00
Finished goods .....	75,222.65
Proceeds of loan by creditors cash .....	7,000.00
Accounts receivable:	
Collected .....	\$88,024.64
Uncollected .....	2,975.36
Total .....	<u>91,000.00</u>
Shop and hand tools .....	609.00
Total .....	<u>\$212,861.65</u>
Total assets .....	<u>\$317,013.35</u>

*New liabilities incurred during trusteeship, and increases of liabilities included in original inventory:*

Creditors' accounts:	
For loans .....	\$ 7,000.00
For raw material....	8,300.00
For manufacturing supplies .....	9,500.00
For factory overhead	2,100.00
For interest .....	143.10
Total .....	<u>27,043.10</u>

To employees:

For productive labor	\$15,500.00
For unskilled labor..	2,270.00

17,770.00

Gross profit on sales:

Increase from sales ...	\$91,000.00
Cost of goods sold....	<u>75,222.65</u>

18,777.35

*Disposition of assets:*

a. Consumed by manufacturing operations:	
Decrease of goods in process .....	\$20,495.70
Raw materials and freight thereon ....	23,672.30
Manufacturing supplies .....	9,804.75
Factory overhead expense .....	3,179.90
Tools .....	300.00

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**Labor:**

Productive .....	15,500.00
Unproductive .....	<u>2,270.00</u>
	\$ 75,222.65

**b. Sold by trustee:**

Finished goods (at sale price) .....	91,000.00
---	-----------

**c. Lost in collection .....** 350.00

**d. Disbursed:**

**i. To acquire assets:**

Tools .....	\$ 609.00
Freight on materials .....	60.00
Factory overhead ..	<u>1,300.00</u>
	\$ 1,969.00

**2. To liquidate liabilities:**

Creditors' accounts .....	\$65,092.80
Wages accrued ....	<u>18,500.00</u>
	\$83,592.80

**3. For expenses of  
trustee .....** \$ 8,000.00

**4. For advances to  
proprietor .....** \$ 4,300.00 **97,861.80**

**e. Returned to J. Bright-  
lawn:**

Cash .....	\$ 1,230.84
Accounts receivable...	2,975.36
Raw materials .....	1,945.70
Manufacturing supplies .....	395.25
Finished goods .....	11,000.00
Goods in process .....	10,450.00
Machinery and ma- chine tools .....	41,000.00
Shop and hand tools...	1,609.00
Factory expense unap- plied .....	<u>750.10</u>
	<b>71,356.25</b>

**\$335,790.70**

**\$335,790.70**

*Disposition of liabilities:*

*a. Liquidated:*

Creditors' accounts .....	\$65,092.80
Wages accrued ....	<u>18,500.00</u>
	\$83,592.80

*b. Returned to J. Brightlawn:*

Creditors' accounts .....	1,650.30
	<b>\$85,243.10</b>
	<b>\$421,033.80</b>

**\$421,033.80**

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GENERAL LEDGER ACCOUNTS

APPEARING ON THE BOOKS OF THE TRUSTEE

CASH

J. Brightlawn .....	\$ 356.00	Factory expense .....	\$ 1,300.00
Creditors' (loan) .....	7,000.00	Productive wages .....	16,000.00
Accounts receivable .....	<u>91,736.64</u>	Unskilled labor .....	2,500.00
		General expense .....	8,000.00
		Tools .....	609.00
		Goods in process, freight in .....	60.00
		J. Brightlawn, drawings..	4,300.00
		Creditors .....	65,092.80
Balance .....	<u>\$ 1,230.84</u>	Balance .....	<u>\$ 1,230.84</u>
	<u>\$99,092.64</u>		<u>\$99,092.64</u>

ACCOUNTS RECEIVABLE

J. Brightlawn .....	\$ 4,062.00	J. Brightlawn (loss) .....	\$ 350.00
Finished goods .....	<u>91,000.00</u>	Cash .....	<u>91,736.64</u>
		Balance .....	<u>2,975.36</u>
	<u>\$95,062.00</u>		<u>\$95,062.00</u>
Balance .....	<u>\$2,975.36</u>	J. Brightlawn .....	<u>\$ 2,975.36</u>

RAW MATERIALS

J. Brightlawn .....	\$17,258.00	Goods in process .....	\$23,612.36
Creditors .....	<u>8,300.00</u>	Balance .....	<u>1,945.70</u>
	<u>\$25,558.00</u>		<u>\$25,558.00</u>
Balance .....	<u>\$ 1,945.70</u>	J. Brightlawn .....	<u>\$ 2,945.70</u>

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SUNDRY MFG. SUPPLIES

J. Brightlawn .....	\$ 700.00	Goods in process .....	\$ 9,804.75
Creditors .....	9,500.00	Balance .....	395.25
	<hr/>		<hr/>
	\$10,200.00		\$10,200.00
Balance .....	<u>\$ 395.25</u>	J. Brightlawn .....	<u>\$ 395.25</u>
	<hr/>		<hr/>

FINISHED GOODS

J. Brightlawn .....	\$ 8,000.00	Sales .....	\$ 91,000.00
Goods in process .....	75,222.65	Balance .....	11,000.00
J. Brightlawn .....	18,777.35		
	<hr/>		<hr/>
	\$102,000.00		\$102,000.00
Balance .....	<u>\$ 11,000.00</u>	J. Brightlawn .....	<u>\$ 11,000.00</u>
	<hr/>		<hr/>

GOODS IN PROCESS

J. Brightlawn .....	\$30,945.70	Finished goods .....	\$75,222.65
Raw materials .....	23,612.30	Balance .....	10,450.00
Mfg. supplies .....	9,804.75		
Productive wages .....	15,500.00		
Factory overhead .....	5,749.90		
Freight inward .....	60.00		
	<hr/>		<hr/>
	\$85,672.65		\$85,672.65
Balance .....	<u>\$10,450.00</u>	J. Brightlawn .....	<u>\$10,450.00</u>
	<hr/>		<hr/>

MACHINERY AND MACHINE TOOLS

J. Brightlawn .....	<u>\$41,000.00</u>	J. Brightlawn .....	<u>\$41,000.00</u>
	<hr/>		<hr/>

SHOP AND HAND TOOLS

J. Brightlawn .....	\$ 1,300.00	Factory expense .....	\$ 300.00
Cash .....	609.00	Balance .....	\$ 1,600.00
	<hr/>		<hr/>
	\$ 1,909.00		\$ 1,909.00
Balance .....	<u>\$ 1,600.00</u>	J. Brightlawn .....	<u>\$ 1,600.00</u>
	<hr/>		<hr/>

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FACTORY OVERHEAD EXPENSES

J. Brightlawn .....	\$ 530.00	Goods in process .....	\$ 5,749.90
Cash, factory expense....	1,300.00	Balance .....	750.10
Creditors .....	2,100.00		
Unproductive labor .....	2,270.00		
Shop tools .....	300.00		
	<hr/>		
	\$ 6,500.00		\$ 6,500.00
Balance .....	<u>\$ 750.10</u>	J. Brightlawn .....	<u>\$ 750.10</u>
	<hr/>		<hr/>

CREDITORS' ACCOUNTS

Cash .....	\$65,092.80	J. Brightlawn .....	\$39,700.00
Balance .....	1,650.30	Cash .....	7,000.00
		Raw materials .....	8,300.00
		Supplies .....	9,500.00
		Factory expense .....	2,100.00
		Interest .....	143.10
	<hr/>		<hr/>
	\$66,743.10		\$66,743.10
J. Brightlawn .....	<u>\$ 1,650.30</u>	Balance .....	<u>\$ 1,650.30</u>
	<hr/>		<hr/>

WAGES ACCRUED—PRODUCTIVE

Cash .....	\$16,000.00	J. Brightlawn .....	\$ 500.00
		Goods in process .....	15,500.00
	<hr/>		<hr/>
	\$16,000.00		\$16,000.00
	<hr/>		<hr/>

WAGES ACCRUED—UNSKILLED

Cash .....	\$ 2,500.00	J. Brightlawn .....	\$ 230.00
		Factory overhead .....	2,270.00
	<hr/>		<hr/>
	\$ 2,500.00		\$ 2,500.00
	<hr/>		<hr/>

GENERAL EXPENSE

Cash .....	\$ 8,000.00	J. Brightlawn .....	\$ 8,000.00
	<hr/>		<hr/>

INTEREST ACCOUNT PAYABLE

Creditors .....	\$ 143.10	J. Brightlawn .....	\$ 143.10
	<hr/>		<hr/>

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**JOHN BRIGHTLAWN (Proprietor)**

Sundry liabilities taken over .....	\$40,430.00	Sundry assets taken over \$104,151.70
Accounts receivable (lost) .....	350.00	Gross profit on sales .... 18,777.35
Interest on accounts payable .....	143.10	
General expenses of trustee .....	8,000.00	
Advances by trustee .....	4,300.00	
	<hr/>	
	\$53,223.10	
Balance .....	69,705.95	
	<hr/>	
	\$122,929.05	\$122,929.05
	<hr/>	
Balance .....	\$ 69,705.95	
Sundry liabilities returned .....	1,650.30	
	<hr/>	
Sundry assets returned .....	\$ 71,356.25	\$71,356.25
	<hr/>	

**TRIAL BALANCES OF THE BOOKS OF THE TRUSTEE**

**INITIAL TRIAL BALANCE**

Cash .....	\$ 356.00	Creditors' accounts .....	\$ 39,700.00
Accounts receivable \$3,712		Wages accrued .....	730.00
350	4,062.00	J. Brightlawn .....	63,721.70
Raw materials .....	17,258.00		
Manufacturing supplies..	700.00		
Finished goods .....	8,000.00		
Goods in process .....	30,945.70		
Machinery and machine tools .....	41,000.00		
Shop and hand tools....	1,300.00		
Deferred debits to mfg..	530.00		
	<hr/>		
	\$104,151.70		\$104,151.70
	<hr/>		

**CLOSING TRIAL BALANCE**

Cash .....	\$ 1,230.84	Creditors' accounts .....	\$ 1,650.30
Accounts receivable .....	2,975.36	J. Brightlawn .....	69,705.95
Raw materials .....	1,945.70		
Mfg. supplies .....	395.25		
Finished goods .....	11,000.00		
Goods in process .....	10,450.00		
Machinery and Machine tools .....	41,000.00		
Shop and hand tools....	1,609.00		
Deferred debits to mfg... 750.10			
	<hr/>		
	\$71,356.25		\$71,356.25
	<hr/>		

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COMMENTS

JOHN STETSON, TRUSTEE

To the accountant who has been sufficiently interested to follow the evolution of the New York C. P. A. examinations, this problem gives the impression of being a rearrangement, revised and enlarged, of the "Peter Post" problem of the New York C. P. A. examination of October 1, 1907. It is interesting to note that while the older problem boldly asks for a Realization and Liquidation account, the younger one is so carefully worded that it avoids the mention of the title which the account is to bear.

Indeed, it would be odd to apply the term "Realization" to the operations of the trustee. The only asset on which the trustee realizes is the Accounts Receivable; but in this he acts precisely as the proprietor should have done. As to the other assets, he uses them as required by the conduct of the business: he operates the machinery and tools; in the course of his operations, he consumes certain working assets and transforms them into trading assets which he exchanges for claims against customers; in the course of his administration, he consumes part of the cash to defray expenses according to the needs of the business, or in pursuance of one of his duties which consists of marshalling the resources which are entrusted to him, in order to apply them to the satisfaction of the claims of the creditors. Having rehabilitated John Brightlawn's enterprise, he naturally accounts for what he took over originally, for the fluctuations of the assets and liabilities, for the causes which have brought them about, and, lastly for the disposition of the properties and moneys which he has held in trust during his trusteeship.

The expression of the above facts resolves itself into the expression of the results shown by the ledger accounts reflecting the transactions of the period, whether the trustee opened new books, or retained the books kept by the proprietor.

## An Income Tax Problem

[An esteemed correspondent has submitted a problem in the application of the income tax which, because of the probability of an early enactment of such a law in this country, is of peculiar interest at present. Our correspondent has offered to analyze replies which are received to this problem. Replies should be addressed to "X," care JOURNAL OF ACCOUNTANCY, and should be received before June 30.—Editor, THE JOURNAL OF ACCOUNTANCY.]

The following statement represents the profit and loss of an English manufacturing concern for three fiscal years, one showing a profit and the other two a loss. The accountant is to prepare an adjustment account of the three years and arrive at the amount upon which the tax is levied. The profit is to be determined by consideration of the items relevant to the business establishment. This problem illustrates the equity of assessing upon an average of three years' results, which is considered fair to the government and to the taxpayer, and preferable to a calculation made upon the result of one year, which might be abnormal in its profits or losses.

### PROBLEM

McNeill & Lauff, manufacturers, are equal partners. From their profit and loss accounts for the fiscal years ended June 30, 1910-11-12, prepare the income tax assessment for 1913-14. The plant at the end of the fiscal year 1912 stood at \$42,500.00, and five per cent is the agreed rate of depreciation.

Dr.	1910	1911	1912
1. Inventory .....	\$ 13,750.00	\$ 13,000.00	\$ 13,600.00
2. Purchases .....	41,200.00	37,840.00	37,400.00
3. General expense .....	21,600.00	20,800.00	20,400.00
4. Loss on live stock sold .....	300.00		600.00
5. Removal expense .....		1,250.00	
6. Charity .....	525.00	525.00	525.00
7. Loss on sale of real estate .....	500.00		
8. Wages .....	12,100.00	11,400.00	11,500.00
9. Salaries .....	3,400.00	3,225.00	3,200.00
10. Salaries, McNeill & Lauff .....	2,000.00	2,000.00	2,000.00
11. Depreciation of plant, 5% .....	2,000.00	1,900.00	1,805.00
12. Interest on capital—McNeill .....	1,050.00	1,085.00	1,050.00
13. Interest on capital—Lauff .....	625.00	600.00	575.00
14. Depreciation of buildings, 2½% .....	1,125.00	1,095.00	1,065.00
15. Schedule A—tax on premises— \$1,800.00 @ 5 5/6% .....	105.00	105.00	105.00
16. Profit .....	1,375.00		
	<hr/> \$101,655.00	<hr/> \$ 94,825.00	<hr/> \$ 93,825.00

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Cr.				
17. Sales .....	\$ 87,605.00	\$ 78,100.00	\$ 73,425.00	
18. Profit on sale of real estate.....			700.00	
19. Dividends on stocks .....	625.00	800.00	650.00	
20. Rents received .....	425.00	600.00	550.00	
21. Inventory .....	13,000.00	13,600.00	14,500.00	
22. Loss .....		1,725.00	4,000.00	
	<u>\$101,655.00</u>	<u>\$ 94,825.00</u>	<u>\$ 93,825.00</u>	

## Oregon C. P. A. Law

Following is the text of the bill introduced at the last session of the Oregon legislature, passed and approved, creating a state board of accountancy of Oregon:

AN ACT to create a State Board of Accountancy and to prescribe its powers and duties, to provide for the examinations of and issuance and revocation of certificates to qualified applicants, and to provide a penalty for the violation of this act.

*Be it enacted by the People of the State of Oregon:*

Section 1. That any person residing or having an office for the regular transaction of the business of accountancy in the state of Oregon, being over the age of twenty-one years and of good moral character, being also a citizen of the United States, or having in good faith duly declared his intention of becoming such, and who shall have received from the state board of accountancy a certificate of his qualifications to practise as a public expert accountant, as hereinafter provided, shall be styled and known as a "Certified Public Accountant" and no other person and no partnership all of the members of which have not received such certificate and no corporation shall assume such title or the title of "Certified Accountant" or use the abbreviation of "C.P.A." or any other words, letters or abbreviations tending to indicate that the person, firm or corporation so using the same is a certified public accountant.

Section 2. The governor shall, within thirty days after the passage and approval of this act, appoint five persons residing in this state, who shall be skilled in the practice of accounting, and who shall have been actively engaged therein on their own account within the state of Oregon for a period of at least two years next preceding the passage of this act, to constitute and serve as a state board of accountancy. The members of such board shall hold office for four years and until their successors are appointed and have qualified; save and except that one of the members of the board first to be appointed under this act shall hold office for one year; one for two years; one for three years; and two for four years. Any vacancies that may occur from any cause shall be filled by the governor for the unexpired term; provided, that all

### *Oregon C. P. A. Law*

appointments made after the first board must be made from the roll of certificates issued and on file in the office of the governor.

Section 3. The state board of accountancy shall make all needful rules and regulations regarding the qualifications and experience of persons applying for certificates under this act, the conduct of the examinations herein provided for or their character or scope, the method and time of filing applications for examinations and their form and contents and all the rules and regulations necessary to carry into effect the purpose of this act. Examinations shall be held by the board at least once in each year at such time and place as may be determined by it. The time and place of holding examinations shall be duly advertised for not less than three consecutive days, not less than thirty days prior to the date of each examination, in at least two representative daily papers published in the state. The examinations shall be "Theory of Accounts," "Practical Accounting," "Auditing," and "Commercial Law."

Section 4. The state board of accountancy shall charge each applicant for the examination and certificate provided for in this act, a fee of twenty-five dollars to meet the expenses of such examination. The fee shall be payable by the applicant at the time of filing his application. In case of failure on the part of any applicant to attend the examination or to pass a satisfactory examination, said applicant may appear at the next examination of said board for re-examination without charge. The state board of accountancy shall report annually to the governor the names of all persons receiving certificates, or whose certificates are registered or revoked; and the receipts and expenses under this act. Out of the funds collected under this act shall be paid the actual expenses of the state board of accountancy. No member of the board shall receive remuneration for his services. Provided, that no expense incurred under this act shall be a charge upon the funds of the state.

Section 5. Said state board of accountancy may, in its discretion, waive the examination of, and may issue a certificate for the certified public accountant to any person possessing the qualifications mentioned in section 1 of this act, who

(1) Is the holder of a certified public accountant certificate issued under the laws of another state which extends similar privilege to certified public accountants of this state, provided the requirements for said degree in the state which granted it to the applicant are, in the opinion of the state board of accountancy, equivalent to those herein provided; or who

(2) Either shall have for at least two years next prior to the passage of this act been practising in this state as a public accountant on his own account or who shall have for at least one year next prior to the passage of this act been practising in this state as a public accountant on his own account and shall have had at least two years prior experience in the practice of accountancy on his own account or with a reputable public accountant or accountants in this or other states, and

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who shall apply in writing to said board for such certificate within sixty days after the passage of this act.

All applicants mentioned in this section shall pay a fee of ten dollars (\$10.00) for such certificate.

Section 6. The state board of accountancy may revoke any certificate issued under this act for unprofessional conduct or other sufficient cause, provided that written notice shall have been served on the holder of such certificate at least twenty days before any hearing thereon, stating the cause for such contemplated action and appointing a day for a full hearing thereon by the state board of accountancy. Provided further, that such revocation must receive the affirmative vote of at least four members of the board.

Section 7. All certificates granted by the state board of accountancy shall be subject to an annual fee of one dollar (\$1.00).

Section 8. If any person shall represent themselves to the public as having received a certificate provided for in this act, or shall assume to practise as a certified public accountant or use the abbreviation "C.P.A." or any similar words or letters to indicate that the person using the same is a certified public accountant, without holding a valid certificate issued under the provisions of this act, or if any person having received such a certificate provided for in this act shall thereafter lose the same by revocation and shall refuse or delay to return such certificate to the board and shall continue to practise as a certified public accountant or use such title or any other title or abbreviation mentioned in section 1 of this act, he shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined a sum not exceeding two hundred dollars for each conviction, or shall be imprisoned in the county jail for a term not exceeding six months.

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**The Wisdom of Chicago**

The prominent part played by accountants in the Chicago Association of Commerce is again demonstrated by the fact that in the committee of that association appointed to entertain the members of the International Conference on the one hundredth anniversary of peace among English speaking peoples the following certified public accountants were included: Edward E. Gore, St. John Powers, Francis R. Roberts, W. Ernest Seatree, Walter A. Staub and Arthur Young.

## New York C. P. A. Law Amended

The sections of the general business law of New York which relate to certified public accountants have been amended by the addition of a reciprocal clause. The law as amended follows (new matter in italics):

AN ACT to amend the general business law, in relation to certified public accountants.

*The People of the State of New York, represented in Senate and Assembly, do enact as follows:*

Section 1. Section eighty of chapter twenty-five of the laws of nineteen hundred and nine, entitled "An act relating to general business, constituting chapter twenty of the consolidated laws," is hereby amended to read as follows:

§ 80. Certified public accountants. Any citizen of the United States, or person who has duly declared his intention of becoming such citizen, residing or having a place for the regular transaction of business in the state, being over the age of twenty-one years and of good moral character, and who shall have received from the regents of the university a certificate of his qualifications to practise as a public expert accountant as hereinafter provided, shall be styled and known as a certified public accountant; and no other person shall assume such title, or use the abbreviation C. P. A. or any other words, letters, or figures, to indicate that the person using the same is such certified public accountant. *Any citizen of the United States who has practised three years as a certified public accountant in another state, under a license or a certificate of his qualifications to so practise, issued by the proper authorities of such state, may, upon payment of the regular fee, in the discretion of the regents of the university, receive a certificate to practise as a certified public accountant without an examination. But he must possess the qualifications required by the rules of the regents of the university and must furnish satisfactory evidence of character and qualifications.*

§ 2. This act shall take effect immediately.

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### New York State Society of Certified Public Accountants

At a meeting of the New York State Society of Certified Public Accountants on May 12th the following officers and directors were elected for the ensuing year:

President, Edward L. Suffern; first vice-president, Ferdinand W. Lafrentz; second vice-president, Parley Morse; secretary, Samuel D. Patterson; treasurer, David E. Boyce.

Directors: Francis R. Clair, Henry R. M. Cook, Adolf S. Fedde, Charles Hecht, Charles E. W. Hellerson, Duncan MacInnes, J. Lee Nicholson, Elijah W. Selfs, Richard P. Tinsley, William F. Weiss, William H. West, and Arthur Wolff.

## Correspondence

### "For the Good of the Profession"

*Editor, The Journal of Accountancy:*

Sir: In connection with your editorial in the last number of THE JOURNAL, the enclosed clipping may be of interest.\* You see human nature is pretty much the same in other professions than accountancy!

But after all, is it so much professional jealousy as dislike to appear in the role of "Professor Know-it-all" that deters so many from publishing professional data and experiences? I have noticed at conventions and local association meetings that after the discussions get everybody warmed up, there is no lack of interesting statements of experiences and opinions. But every chairman who has conducted one of these discussions knows how hard it is to get them started.

As a case in point I note quite a lively controversy is fairly under way in THE JOURNAL on the subject of interest as part of manufacturing or production costs. Doesn't that seem to point the way to induce freer expressions of opinions and experiences? In short, let THE JOURNAL assume the role of chairman of a general debate, propound the problems and invite general discussion.

As an example: What is the proper place for depreciation in an income statement?

Yours truly,

W. H. LAWTON.

May 11, 1913.

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#### \* SUPPRESSION OF TECHNICAL NEWS

(From *The Engineering Record*)

Dear Sir: I have read with a great deal of interest the editorial in the *Engineering Record* of March 15 entitled "Suppression of Technical News." You have expressed my sentiments, and especially in the paragraph reading as follows: "The suppression of so much good engineering information until it becomes too old to be of much interest is due to a very common misapprehension as to what constitutes technical news."

Most engineers have adopted this policy largely, I think, because of what might be termed "professional jealousy"; but it has been my idea for several years that the principle is wrong and that we do one another an injustice by not publishing for the benefit of our fellow engineers such data as would be of service to us.

P. H. NOXCROSS.

Atlanta, Ga.

## *Correspondence*

### **Interest a Factor of Costs?**

*Editor, The Journal of Accountancy:*

Sir: I have read with much interest the articles published in THE JOURNAL on the question proposed in its April issue, i. e., "In a manufacturing business shall interest on investment be considered as a factor of cost; or shall it be treated as a deferred charge against profits?" and believing as I do your statement that "the matter is one of considerable importance" and one which demands "a practical settlement," I venture to accept your invitation for further comment on the arguments so far advanced.

The principal reasons for the inclusion of interest as a cost element are given in your articles as follows:

PROFESSOR COLE gives two arguments: first, because the enterprise to be self-supporting must yield sufficient income to give a proper amount of interest on the investment; second, because the inclusion of interest is needed as a guide in determining the comparative costs of production as between processes requiring the use of expensive machinery with heavy investment of capital and processes in which there is a larger use of labor requiring less investment of capital.

A. HAMILTON CHURCH makes a distinction between interest on borrowed capital and interest on that part of the invested capital of a manufacturing business which is "represented by land, buildings, plant machinery, stores and work in progress," but states that interest on capital so invested for use in manufacturing should be charged as part of the cost of manufacturing in order to know the comparative economical value of the different processes used in manufacturing, and should be added to the cost of the output.

EDWARD L. SUFFERN agrees with the main contention of the advocates of interest as one of the elements of production, stating that so far as the manufacturer who borrows all his capital is concerned, his costs do not terminate nor do his profits begin until this interest is earned and it is certainly part of his cost of doing business.

MR. SUFFERN also states that interest should be included in the cost of manufacturing in order to know the relative advantages of special as against regular classes of output.

J. LEE NICHOLSON gives a further reason for including interest as part of the cost of doing business, in the greater risk of capital invested in manufacturing enterprises as against its investment in stocks, bonds or real estate. MR. NICHOLSON states his agreement with the reasons advanced by PROFESSOR COLE and A. HAMILTON CHURCH.

The first reason given for the inclusion of interest on investment as part of the cost of production by PROFESSOR COLE is that the enterprise to be self-supporting must yield sufficient income to give a proper amount of interest on the investment.

I submit that this argument does not apply to the question proposed, as it would make no difference to the income of an enterprise whether

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the interest were treated as a factor of cost or as a deferred charge against profits; the net result or income would be the same.

The second argument by PROFESSOR COLE is that in order to know the comparative economical cost of two processes of manufacture the interest on machinery used must be taken into consideration.

The illustration given by PROFESSOR COLE is a simple problem in the relative economical value of two processes of manufacture, one using expensive machinery, the other using hand labor, and his argument is that a proper comparison of the cost of these two processes must include the interest on the expensive machinery. Certainly any business man before undertaking to invest new capital or his surplus working capital in expensive machinery, would make a careful calculation before he purchased such machinery to ascertain whether the actual profits derived from its use would pay the cost of procuring such new capital and still show a surplus over the profit derived from the hand process. This is quite a different matter from the theory advanced of charging the interest on the purchase price of such machinery as part of the manufacturing cost of the articles it produces, as it simply is not part of the manufacturing cost of same; but to make this statement does not mean that the manufacturer cannot reimburse himself for the cost of the new capital necessary. He certainly should and actually does, but he should do so by making his selling price include the manufacturing costs, commercial costs, financial costs, and also an adequate profit to compensate him for the risk he assumes in making the investment.

It will be noticed that none of the reasons given for the inclusion of interest as a factor of cost is based on fundamental principles of accountancy. MR. CHURCH states that "the general principle we must apply in discussing this question is that of utility," and calls the kind of interest he advocates "an assessment for the use of capital values in the actual process of manufacturing." Now if, under the methods of cost accounting which do not include interest as a cost factor, there is no provision made to provide compensation for the use of capital values represented by land, buildings, plant machinery and other needed facilities for manufacturing, in this case MR. CHURCH would have pointed out an omission which should be corrected. But such is not the case. Modern cost accounting does provide an adequate charge to each article manufactured or job performed for the use of the manufacturing facilities needed by arranging for a proper charge to output for the depreciation caused by the manufacturing process. This assessment for depreciation when properly made provides for the repairs needed and replacement of old buildings, machinery and machines by new buildings, machinery and machines, and places the entire burden of this repair and replacement cost on the articles manufactured and jobs performed in exact ratio to their use of these facilities, so that the entire capital investment in plant is preserved without impairment at its full original asset value, by an "assessment for the use of capital values in the actual process of

## *Correspondence*

manufacturing"; but this "assessment" is called depreciation by most cost accountants.

In the operation of a manufacturing business the following processes are fundamental:

- The production of some article or substance.
- The selling of its product.
- The shipment of its goods.
- The clerical work necessary to transact its business.
- The administration of its business and financial affairs.

To undertake the work, capital is invested in a manufacturing plant to make its product, and also in a place and facilities for and expenses connected with the sale of its product, i.e., a selling force, a shipping force, office force, and working capital to run the business. So it is assumed that your question—"In a manufacturing business shall interest on investment be considered as a factor of cost?"—does not contemplate the division of capital made by Mr. CHURCH, who ignores all investment of capital necessary to perform commercial functions and makes the interest he advocates apply simply to that part of the capital values used in manufacturing processes and the facilities of manufacture, while it is claimed by those who differ from his view that for the use of these facilities proper depreciation charges make ample provision up to the point where it is not a question: "What has the use of this machine or shop cost us in the production of this output?" but "How much interest are we entitled to charge on the cost of this plant investment to add to the cost of operating its facilities? For instead of investing our money in this business, we might have purchased government bonds at 3%, or other bonds at from 4% to 6%, or possibly some speculative industrial which might have yielded 8%, so we do not know just how much interest we should charge to cost of manufacturing output."

The question at this point becomes not a question of cost accounting; all the actual costs have been provided for. It is not a question of comparative economy in the use of certain processes; that has been provided for on the basis of actual cost of process plus actual cost of machinery impairment and wear and tear in each process. It is now simply a question, from the point of view that would include interest on investment as a manufacturing cost: How much interest on my money do I consider an adequate return for my investment in this plant? Then in accordance with the personal decision of such a manufacturer all his manufactured goods and goods in process are charged with whatever rate of interest the manufacturer elects to charge for his money, and the interest department of his profit and loss account is credited with this absolutely artificial and fictitious amount, which then appears on his balance sheet as part of the asset value of his manufactured stock.

Now, if it be granted that the manufacturer has a perfect right to make whatever rate of profit he can secure from the sale of his goods, at least let common business honesty prevail at this point; and let him in his calculations of price keep his cost figures intact and accurate, so

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that his manufacturing cost values will in his financial statements reflect the universal meanings attached to these words by investors who buy bonds and by bankers who depend upon the honesty of the balance sheet to furnish an accurate view of the assets and liabilities of those with whom they transact business.

To do this will not in any way limit the profit any manufacturer desires to make, for having ascertained the exact cost of his production, the exact cost of selling and shipping his goods, and cost of his office, administration and financial requirements, he is in a position to add to these several factors of cost and commercial expense the factor of desired profit to his selling price—all without recourse to any devious or doubtful presentation of asset values. Furthermore, the profits shown by this process will not include anticipations made before the goods are sold, but will be actual earned profits based on actual sales.

It might be well to point out the further drift of those advocating the addition of interest to manufacturing cost. Mr. SUFFGRN states that, in the case of a man who borrows all his capital, as there can be no profits to him until his interest has been earned, such interest is part of his cost of doing business. Mr. NICHOLSON states that interest on capital should be charged to proper expense account before ascertaining the actual profit from manufacturing or trading, and quotes from Mr. WEBNER's *Factory Costs* to the effect that rental of buildings for manufacturing purposes and interest on investment are similar charges, and that hence such interest is a manufacturing expense. He also quotes from STANLEY GERRY's *Multiple Costs*, "We may even carry this a stage further, and also charge to the factory interest on stocks of raw material."

It is quite clear that here is the climax of the absurdities involved in applying the erroneous proposition that interest is a cost charge. Consider the condition of a manufacturing business in which through a mistake of judgment in the purchasing department, 300,000 pounds of rubber was purchased, enough for two years' operation, at what was thought to be a very low price. In the meanwhile the price drops still lower, and at closing period the cost accountant of the new school takes this stock of raw material at cost, and then adds to this cost interest for one year on the investment price of the raw rubber on hand at (?) per cent, making a nice profit.

It may be urged that he should drop to market price, but he cannot consistently do this, because he must secure for the firm at least the interest charges on their capital investment in raw rubber. It is significant that the balance sheet, with its message to the manufacturer, to outside investors and the financial community, is not even once mentioned by advocates of the new interest cost theory.

Men do not invest money in manufacturing businesses to get interest for their money but for the profit they expect to make. Let us keep the distinction clear between the manufacturing costs of production and the commercial costs of selling and financing a business, not only for

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the sake of clear analysis, but to secure a sound basis for the fixing of prices to give adequate profit, and for the further reason of meriting the confidence of both manufacturers and bankers in the asset values shown on the balance sheets we prepare, which should not be inflated by fictitious additions to actual cost values.

Yours truly,

EDWARD C. GOUGH, C.P.A.

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### **Michigan C. P. A Law Amended**

A bill, which has passed the house of representatives and senate of Michigan and awaits the governor's signature, modifies in some degree the C. P. A. law of that state. It involves the following changes:

Members of the state board shall hold office until their successors are appointed.

The two-year requirement heretofore a part of the rules of the board, requiring two years' continuous practical experience in public accounting immediately preceding the date of application, is now a part of the law.

A bond of \$5,000, which was required to be filed under the old law, if allowed to lapse acts as an automatic revocation of certificate, but certificate is renewed on renewal of the bond.

All audit reports signed as C. P. A. must bear the date of the holder's certificate and the date of the expiration of the surety bond, and shall be signed only by actual holders of certificates; and any corporation or partnership signatures will be considered a violation. The signature of the C. P. A. so affixed shall be permitted only to certified public accountants who shall have performed the examination in person, and any literature or reports issued indicating C. P. A. service shall be considered a violation of this act, unless the signature be that of a holder of a certificate issued as provided by law.

The bill if signed will become a law August 15th. Thereupon a new board will be appointed by the governor.

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### **Michigan C. P. A. Board**

The governor of Michigan has appointed the members of the state board of accountancy as follows:

Frederic A. Tilton, C.P.A., Detroit.

Archibald Broomfield, attorney, Big Rapids.

Durand W. Springer, C.P.A., Ann Arbor.

Terms expire January 1, 1914, 1915 and 1916 respectively.

The new board held its first meeting and organized May 3, 1913, and set June 12 and 13 for examinations.

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### Pennsylvania Institute of Certified Public Accountants

At the annual meeting of the Pennsylvania Institute of Certified Public Accountants the following officers were elected:

President, Edward P. Moxey; vice-president, William W. Rorer; treasurer, Charles Weissinger; secretary, William J. Wilson.

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### Dominion Association of Chartered Accountants

The annual convention of the Dominion Association of Chartered Accountants will be held in Winnipeg, Manitoba, on September 2nd, 3rd and 4th. The selection of these dates for the convention has been largely influenced by the hope that members of the American Association of Public Accountants would be able to attend as visitors.

The Dominion Association expects to have a large gathering of members and guests, and extends a cordial invitation to all the members of the American Association who may be able to attend.

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### The Rhode Island Society of Certified Public Accountants

The eighth annual meeting of the Rhode Island Society of Certified Public Accountants was held in Providence on April 25th, 1913. The secretary of the American Association was the guest of the society and addressed the members on the work of the association.

The following officers were elected:

President, Charles S. Jenckes.

Vice-President, F. W. Barney.

Secretary-Treasurer, Hamilton L. Carpenter.

Member of executive committee, Adin S. Hubbard.

Delegate to convention of American Association, F. W. Barney.

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### H. J. Freeman

H. J. Freeman, C.P.A., treasurer of the Minnesota Society of Public Accountants, died at his residence in St. Paul on May 19th.

Mr. Freeman was one of the most prominent foundation members of the Minnesota society and was an enthusiastic worker in the cause of accountancy as a whole. His absence will be seriously felt by accountants in his state and elsewhere.

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## Announcements

Rodway and Kessler, certified public accountants, of St. Louis, Missouri, announce that they have taken into partnership Jeff K. Stone, C.P.A., and that in future the style of the firm will be Rodway, Kessler and Stone, certified public accountants. The offices of the firm are in the Third National Bank Building, St. Louis, Mo.

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Rollins-Stewart-Phinney and Company announce that they have opened offices at 508-509 First National Bank Building, Fort Worth, Texas, for the practice of public accounting.

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Alexander H. Watt, certified public accountant, announces that he has opened an office at 402 North American Building, Philadelphia, Pa.

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Phillips & Glendinning, chartered accountants, announce that their office address has been changed to 1201 Union Trust Building, Winnipeg, Manitoba.

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Volumn, Fernley, Volumn and Rorer announce that they have transferred their New York offices from Trinity Building to suite 1380-84 Woolworth Building, New York City.

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## Books Received for Review

*Club Accounts.* By H. Tansley Witt. 1913. 95 pages. 8vo, cloth. Price, \$1.75. Gee & Co.

*Elements of Accounting.* By Joseph J. Klein. 1913. 422 pages. 8vo, cloth. Price, \$1.50. D. Appleton & Co.

*Handbook of Municipal Accounting.* By U. L. Leonhauser. 1913. 318 pages. 8vo, cloth. Price, \$2. D. Appleton & Co.

*How to Read the Balance Sheet of a Commercial Concern.* By F. W. Pixley, London. 1913. 64 pages. 8vo, cloth. Price, \$1. Gee & Co.

*Principles of Double Entry Bookkeeping.* By Charles Van Cleve. 1913. 210 pages. 12mo, cloth. Price, \$1.50. Kempster Printing Co.

*Regulation, Valuation, and Depreciation of Public Utilities.* By S. S. Wyer. 1913. 313 pages. 8vo, limp leather. Price, \$5. Sears & Simpson Co.

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- The Savings Bank and Its Practical Work.* By W. H. Kniffin. 1913.  
551 pages. 8vo, cloth. Price, \$5. Bankers' Pub. Co.
- The Stock Exchange from Within.* By W. C. Van Antwerp. 1913. 459  
pages. 8vo, cloth. Price, \$1.50. Doubleday, Page & Co.
- Treatise on the Incorporation and Organization of Corporations.* By  
T. G. Frost. 4th edition, 1913. 926 pages. 8vo, buckram. Price, \$6  
Little, Brown & Co.











